UNIVERSITY OF THE WESTERN CAPE

Faculty of Community and Health Sciences

BARRIERS TO EFFECTIVE PARTNER NOTIFICATION AMONGST
PATIENTS WITH SEXUALLY TRANSMITTED INFECTIONS AT A
HEALTH CENTER IN WINDHOEK DISTRICT, NAMIBIA.

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A mini-thesis submitted in partial fulfillment of the requirement for the degree of Masters in Public Health, the Faculty of Community and Health Sciences, School of Public Health,

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November 2011

KEY WORDS

- Sexually transmitted infections (STIs)
- Human Immunodeficiency Virus (HIV)
- Syndromic Management of STIs
- Partner Notification
- Barriers to Partner Notification
- Index Patient
- Patient Referral
- Primary Health Centre
- Windhoek
- Namibia



ABSTRACT

The notification and treatment of sexual partner(s) is a key element in the prevention and control of sexually transmitted infections (STIs). Partner notification interrupts the chain of STI transmission, prevents STI complications and long-term sequelae in the sexual partner(s), and also prevents re-infection of the treated index patient. Partner notification is a recognized component of the syndromic management of STIs in Namibia and yet the partner notification rates in the country remain low - as low as 7% in the district of Windhoek currently. In this district, which has the highest number of STIs cases in Namibia, the specific factors that hinder partner notification have not yet been documented.

This study sought to investigate the perceived and experienced barriers to partner notification amongst STI patients attending an urban primary health center in the district. An explorative, qualitative study with eight patients (four males and four females), aged 16 years and over, who presented with a new/recurrent episode or a STI follow up was conducted. The participants were purposively selected with the aid of the deputy nurse in charge of the health center after agreeing to take part in the study. The patients were asked about what they felt were personal, partner-relationship and health services related factors that hindered partner notification. Three health workers working at the health center served as key informants and were asked about barriers to partner notification based on their experience of delivering preventative and curative STI - related services over the past three or more years. Interviews with both patients and key informants were conducted in the health facility, recorded and later

transcribed. Content analysis of the transcribed data was conducted to identify recurring themes across the different interviews.

The results of the study suggest that the partner notification strategy was not functioning optimally as a result of a number of inter-twined factors. The factors can be categorized into personal barriers, partner-relationship dynamics and health services related barriers. The study found that participants considered there were barriers to partner notification across all these three categories. Commonly reported barriers included the stigma associated with STIs and the cultural and religious norms that do not promote discussion of topics related to sex and sexuality in general. Other barriers such as gender inequality, the fear of a partner's reaction to the notification, feelings of guilt associated with infidelity, the lack of communication between partners and the inability to locate partner(s) were highlighted by participants.

Barriers associated with the health services included the lack of health education about the importance of partner notification, the absence of thorough risk reduction counseling, the current method of partner notification that is being utilized and the negative attitudes of health workers.

It is suggested that having a greater understanding of these barriers and how to work with them in a health education or counseling sessions will allow health workers to address them more directly with their patients and in turn, hopefully improve the management and outcomes of partner notification strategies in the STI prevention and control program in the Windhoek district and potentially other districts in Namibia.

DECLARATION

I, Shepherd Ushe Shonhiwa, declare that *Barriers to Effective Partner Notification Amongst*Patients with Sexually Transmitted Infections at a Health Centre in Windhoek District,

Namibia is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name: Shepherd Ushe Shonhiwa Date: 30 November, 2011

Signed:

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ACKNOWLEDGEMENTS

I would like to thank my supervisor Ms. Nikki Schaay for her great support during the course of this mini-thesis her comments and feedback enriched this study. I gratefully acknowledge Professor Gabrielle O'Malley who willingly gave her time and expertise to read all the six chapters and offered valuable comments. I would also like to thank my fellow MPH colleagues Ms. Annatjie Tobias and Ms. Tuwilika Kakili for their encouragement and assistance with audio-recording equipment. I am indebted to my colleague Dr. Jebson Zingwari for his valuable advice on formatting this document.

I am grateful to the Ministry of Health and Social Services in Namibia and the Khomas Regional Directorate for allowing me to conduct this study at the selected health centre. I would particularly want to acknowledge the staff and participants from the selected health centre, without them this study would not have been possible.

Lastly, I would like to thank my wife Margaret for her support and encouragement through out my studies.

LIST OF ABBREVIATIONS

AIDS Acquired Immune Deficiency Syndrome

BASHH British Association for Sexual Health and HIV

GUD Genital Ulcer Disease

HBM Health Belief Model

HIS Health Information System

HIV Human Immunodeficiency Virus

HPV Human Papilloma Virus

HTC HIV Testing and Counselling

IPV Intimate Partner Violence

MDRCP Policy Management and Development Review Committee

MO Medical Officer

MoHSS Ministry of Health and Social Services

MSM Men who have sex with men

PDPT Patient Delivered Partner Therapy

POC Point of Care

SADC Southern African Development Community

SSA Sub - Saharan Africa

STIs Sexually Transmitted Infections

UNAM University of Namibia

UDS Urethral Discharge Syndrome

USA United States of America

UWC University of Western Cape

VCT Voluntary Counselling and Testing

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VDS Vaginal Discharge Syndrome

WHO World Health Organisation

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CHAPTER 1: INTRODUCTION

This chapter introduces the study. It includes an overview of the STI burden, complications of STIs, current Namibian guidelines and policies related to STI prevention and management such as partner notification, the study setting, the research problem, rationale of conducting the study as well as an outline of this document.

1.1 Global Overview of the Burden of STIs

Sexually transmitted infections (STIs), other than the human immunodeficiency virus (HIV), remain an important public health problem worldwide. STIs have a significant impact on morbidity and potential complications in the individuals affected and they also have an association with HIV.

Worldwide 467 million new cases of treatable STIs are reported annually (Southern African WESTERN CAPE).

Development Community [SADC], 2010). Sub Saharan Africa had the highest estimated prevalence of curable STIs in 1999¹ with an estimated 119 infected adults per 1,000 population followed by Latin America and Caribbean with 71 per 1,000, and South East Asia with 50 per 1,000 population (WHO, 2001). In comparison, North America and Western Europe had 19 and 20 infected adults per 1,000 populations respectively (WHO, 2001). The lowest figures were for East Asia and The Pacific with 7 infected adults per 1,000 population (WHO, 2001).

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¹ Documentation of STIs rates internationally is difficult to access especially in developing countries. No single organisation regularly collates STI statistics worldwide and there appear to be no updated international estimates - apart from these ones which were collated more than a decade ago.

1.2 Overview View of the Burden of STIs in sub Saharan Africa and Namibia

Sub-Saharan Africa (SSA) bears the highest burden of curable STIs in the world (WHO, 2001). According to Spencer (2005) about sixty nine million new STI cases are reported yearly in SSA from a population of 269 million people in the age group 15-49 years.

In Namibia in 2006 a total of 69.414 STI cases were recorded and this accounted for 2.9% of all out-patient consultation for that year (MoHSS-HIS, 2007a). Since then there has been a gradual decline in the national STI figures in Namibia. For example in the reporting period from April, 2009 to March 2010 the total number of STIs reported country wide had come down from 59344 (the previous year) to 56844 representing a 4.2% reduction (MoHSS-STI report, 2010).

Khomas region (the region in which the study site is located) in Namibia reported 94, 88 cases per 1,000 population in 2009/2010 (MoHSS-STI Report, 2010). However, this figure included viral STIs (non-curable) such as genital herpes. Namibia does not use the etiologic approach to diagnosis (i.e. diagnosis based on laboratory diagnosis of the specific causative organism) but instead uses the syndromic approach to STI management – an approach which is described in Section 1.4 of this document. It is therefore difficult to separate bacterial STIs from viral STIs in the Namibian context.

1.3 The Health Implications of Untreated STIs

It is commonly recognized in medical practice that if left untreated STIs may lead to complications such as urethral stricture, epididymo-orchitis and infertility in men. In women curable STIs like gonorrhea and chlamydia can lead to inflammation of fallopian tubes with subsequent chronic pelvic pain, infertility and risk of ectopic pregnancies. Viral STIs like the human papilloma virus (HPV) causes genito-urinary cancer such as cervical cancer in women and anal cancers in both women and men, while hepatitis B virus (HBV) may cause liver cancer.

STIs also have an impact on maternal and child health and can lead to adverse pregnancy outcomes such as spontaneous abortions, early rupture of membranes, premature birth and low birth weight. For example, maternal syphilis affects about one million pregnancies worldwide (Klisch, Mammary, Olavarrieta & Garcia, 2007) with possible adverse sequelae such as neurologic defects in the new born. In Namibia the syphilis prevalence rate in pregnant woman in the age group 15-49 years was 2.3% in 2008 (MoHSS, 2008a). Partner notification (of the male partner specifically) is therefore important as a potential means in preventing maternal re-infection and the vertical transmission of syphilis and other STIs. Another complication is that of maternal gonoccocal or chlamydial infection that can be potentially blinding in the neonate.

A number of studies have documented conventional STIs as risk factors for HIV transmission (Bonnel, Weatherburn & Hickson, 2000). STIs increase the risk of acquisition and transmission of HIV (WHO, 2007) as they are known to cause an elevation in viral load in the genital fluids as well as in the plasma leading to increased probability of transmission.

Appropriate treatment have been shown to reduce viral load (Quinn, Wawer, Sewankambo, Serwadda, Li, Wabwire-Mangen, 2000; Cohen, Hoffman, Royce, Kazembe, Dyer. & Daly, 1997) as was illustrated in the Mwanza trial in Tanzania where Grosskurth, Mosha & Jeta (1995) showed that improved STI treatment reduced the HIV incidence by 42%.

A study to explore the prevalence of HIV in STI patients in Namibia (MoHSS, 2007a) showed that 28% of woman with vaginal discharge syndrome (VDS) also had HIV infection, 36% of men with urethral discharge syndrome (UDS) were also co-infected with HIV and for patients with genital ulcer disease (GUS), and 52% were co-infected with HIV. Thus, given the close association between STIs and HIV, the Namibian STI guidelines (MoHSS, 2009) dictates that all patients with STIs should be tested for HIV and those found positive should be linked to HIV care and treatment. Thus early diagnosis and treatment of STI patient and their partners have become one of the intervention strategies in the prevention of HIV infection.

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1.4 STI Management Strategies

To date three approaches have primarily been used in the management and treatment of STIs: etiology-based treatment, clinical diagnosis and treatment and syndromic management.

Etiology-based treatment uses laboratory tests to identify the causative agent of a particular STI and treatment is targeted at that particular agent. Etiology-based treatment is the most accurate and is the one used in most industrialized countries. However, in resource limited settings it is problematic as laboratory facilities are not readily available at most primary health care facilities. The tests are also expensive and require skilled laboratory personnel. In Namibia the majority of facilities do not have point of care (POC) testing equipment which

means laboratory results are often not available on the same day. Relying on this method would mean that treatment of the STI patient would need to be delayed until the results were returned to the facility, a delay which would be inappropriate.

The second approach, the clinical approach, relies on the clinical experience of the health worker to identify symptoms suggestive of a typical STI which they treat accordingly. This approach misses mixed infections, is the least accurate and is therefore unreliable and not recommended (MoHSS, 2009).

The third approach is syndromic management which is based on determining a particular syndrome aided with risk assessment (MoHSS, 2009). For example, with urethral discharge syndrome (UDS) the patient is treated for all the possible causative agents of urethral discharge without necessarily sending specimens to the laboratory. The treatment thus covers mixed infections and affords a patient treatment at their first visit. Given syndromic management can be implemented at the primary health care level without the need for laboratory investigations it makes STI care more accessible. The disadvantage of this approach is that there is a tendency for over treatment given the patient gets treatment for other causes of the STI syndrome they may not have. However, the disadvantage of over treatment is considered to out weigh the unnecessary delay caused by waiting for laboratory results and furthermore in a context which cannot afford the costs associated with establishing a laboratory.

The Namibian Guidelines for the Management of Sexually Transmitted Infections using the Syndromic Approach (MoHSS, 2009) recommend a comprehensive health promotion package based on the syndromic management of STIs. The comprehensive approach includes:

confidentiality; counseling and education including HIV counseling and testing (HTC); condom promotion, provision and demonstration; compliance with medications and contact tracing also know as partner notification. These are referred to as the '5C's' in the Namibian guidelines. In November 2009 the SADC framework for the prevention and control of STIs added two more 'C's': namely, circumcision for eligible men and cervical cancer screening for eligible women (SADC, 2010). This research focused on one of these "C's" i.e. contact tracing (also called partner notification) with the aim of finding out factors that led to poor partner notification at an urban facility in Windhoek.

1.5 STI Partner Notification Strategy

Notification and management of sexual partner(s) of a patient presenting with an STI is a key program element in the prevention and control of STIs (WHO, 2007). Partner notification refers to the process of notifying and treating the source and secondary contacts of the index patient.² In order to break the chain of STI transmission, it is important that apart from the index patient receiving treatment the source and secondary contacts are encouraged to access the health services and if appropriate receive treatment for curable bacterial STIs that they might have as well even if they are asymptomatic. Partner notification is thus a disease control activity aimed at improving case finding in otherwise asymptomatic patients who may not seek treatment if not notified. If effectively implemented it serves to reduce the pool of STI-related infection in the community. Ideally partner notification should be confidential and

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² The **index patient** is the one who presents to the health facility with signs and symptoms of a STI and the **source contact** is the person from whom the index patient acquired the STI, whilst the **secondary contact** refers to the person(s) that the index patient has had sex with and possibly infected after having been infected by the source contact.

voluntary, with access to treatment for the partner(s) as well as patient protection against discrimination (WHO, 2007).

Re-infection of treated index cases by their partner(s) accounts for 14 to 30% of incidence of curable STIs (Khan, Fortenberry, Wanzhutu, Orr and Byron, 2005). Thus partner notification and treatment becomes critical in preventing these re-infections. Partner notification, by encouraging the partner(s) of index patient to access health services ensures that people exposed to an infectious disease know about it and can seek the necessary care and counseling. Notification and treatment of STIs in partners is also important in preventing untreated STI sequelae in source and secondary contacts as previously mentioned.

1.6 The Current Practice in Namibia Towards Partner Notification

Namibia uses the patient-led or patient referral approach aided by referral slips (also called partner notification slips) which the index patients are supposed to give to their partner(s) and advise recipients to seek care (MoHSS, 2009). These slip contain the name of the clinic were the index patient was seen and treated as well as a diagnosis code which identifies the particular STI syndrome the index patient was treated for. The name of the index patient and partner(s) do not appear on the slip which only bears the code for the specific STI syndrome the index patient has been treated for. These partner notification slips are used to track the number of partners treated, they are counted at each facility in order to record the number of partner(s) treated. The partner notification rate is calculated as follows; number of partners treated/number of index patients. This is the strategy that is practiced in all regions and facilities in Namibia

1.7 Study Setting

The study was conducted among STI patients attending an urban primary health care centre-Ushe health center³- in Windhoek district, Khomas region, Namibia. Khomas region is served by one referral hospital, one intermediate hospital and two health centres which are complemented by seven relatively small primary health clinics. Most STIs are managed at the primary level of care. The choice of the health centre was based on the fact that it is the largest primary level health center in Windhoek district providing outpatient primary health care to a population of 88, 817 of which 24% is between 15 and 19 years (MoHSS, 2008b).

The health centre is situated in Katutura suburb, the largest and relatively poor Black location in Windhoek. The northern part of the suburb is boarded by informal settlements where houses are built of corrugated iron sheets, with no municipal water and sanitation facilities. According to the Windhoek City Police Chief, Windhoek has 350, 000 residents and of that close to 75% live in these informal settlements (Smith, 2011). Alcohol abuse and shebeens remain the biggest problems. Alcoholism is one of the common health problems with some anecdotal reports suggesting this as one of the drivers of STIs in the suburbs. Teenage pregnancy is also a problem with the average age at first delivery being 19 years (MoHSS, 2008b).

³ In order to increase anonymity of the health centre the name "Ushe" was used as a pseudonym

The majority of the youth living in Katutura are unemployed. There is a general high level of unemployment in Windhoek estimated to be 40% (Central Bureau of Statistics, 2004). In Katutura most people are employed in the informal sector doing jobs such as selling roasted meat and vegetables and some work in shebeens.

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1.8 Problem Statement

Whilst patient referral aided by the use of partner notification slips is a key component of the comprehensive management of STIs in Namibia (MoHSS, 2009) the partner notification rate at Ushe health centre remains very low – particularly in comparison to other regions in Namibia which are using the same partner notification strategy. In 2007 the rate of partner notification at Ushe health centre was reported at 7% (MoHSS-HIS, 2007a). In comparison Mwilima (2006) reported a partner notification rate of 16% to 20% in three different regions of Namibia, namely Caprivi, Karas and Oshana regions. These regions have a mixture of urban and rural health facilities whilst Khomas is predominantly an urban region. Global partner notification rates vary from 20% to an upper limit of 67% (Golden, Faxelid, & Low, 2008).

Windhoek district had the highest STI burden in 2007, accounting for 17.3% of the country's total STI burden (MoHSS-STI Report, 2008). Poor partner notification is believed to be one of the contributing factors to these high STI figures. To date, the specific factors that hinder partner notifications in Windhoek have not been documented (MoHSS-STI Report, 2009). Having a greater understanding of these barriers will allow health workers to address them more directly and in turn, hopefully, increase the rate of partner notification.

1.9 Rationale of the Study

The purpose of this study was to explore the potential barriers that exist in relation to partner notification and on the basis of this information strategize with health workers and program planners in Windhoek district on the best ways to improve the partner notification rate of new and follow up cases of STIs in outpatient care in the district. This will in turn ensure that the majority of partner(s) who may be exposed to STIs know and have an opportunity to seek care and treatment as well as to encourage behavior change with the ultimate goal of decreasing STIs in the district.

1.10 Outline of this Document

Chapter 1 introduces the study including the current Namibian guidelines and policies related to STI prevention and management. It also includes a description of the study setting, the problem statement and the rationale for conducting the study. Chapter 2 focuses on a review of literature pertaining to partner notification rates, partner notification strategies and barriers to partner notification. Chapter 3 then describes the research methodology used and Chapter 4 the results of the study. These are then reflected on in relation to literature in Chapter 5. Finally, Chapter 6 provides a summary of the key findings and outlines a set of recommendations for future practice.

CHAPTER 2: LITERATURE REVIEW

This chapter focuses on the global and local country trends related to STI partner notification rates. Various barriers to partner notification are considered: from those related to the individual, partner or relationship dynamics to those associated with the health service itself. Different partner notification strategies and their respective advantages and short comings are also discussed. Given HIV is, in the majority of cases, an STI in its own right some links are made between the literature on HIV partner disclosure and that of STIs. Finally, the chapter discusses the Health Belief Model (HBM), a model that seeks to explain and predict health behaviors and what influence health behaviors, and how this could be used in interventions related to partner notification.

2.1 Introduction

As mentioned in Chapter 1, STIs remain a major public health problem worldwide and partner notification has been accepted as one of the strategies to reduce the burden of STIs (Golden *et al.* 2008). The overall goal of STI care and management is to cure the index patient, ameliorate the manifestations of infections, and prevent complications as well as further STI transmission - including through community based prevention strategies. Partner notification, followed by prompt, effective treatment and counseling is central to the fourth goal i.e. prevention of further transmission of the infection and to reduce re-infections from the source and secondary contacts (Golden *et al.* 2008).

The next sections focus on partner notification rates and also barriers to partner notifications from various studies.

2.2 Partner Notification Rates

Partner notification is an important public health intervention strategy in the prevention and control of STIs. In order to avoid re-infections of the treated index patient, it is accepted practice that their sexual partner(s) should be notified and treated (regardless of whether they are symptomatic or asymptomatic) as a standard means of breaking the cycle of STI transmission.

Many STIs are asymptomatic particularly in women which makes it even more important for males to notify their partners. Despite this universally accepted intervention strategy, efforts to improve partner notification rates in different countries worldwide have generally remained low and more so in developing countries, with global rates varying from as low as 20% to an upper limit of 67% (Golden *et al.* 2008). This wide variation in partner notification rates was also reported by Alam, Chamot, Vermund, Streatfield & Kristensen (2010) when they did a systematic review of interventions related to partner notification in developing countries. The authors reviewed studies related to partner notification conducted in developing countries between January 1995 and December 2007 using databases from Medline, Embase and Google Scholar. This wide range to some extent mirrors that of the global HIV partner disclosure rates which have been recorded as ranging from 16.7% to 86% (Medley, Garcia-Moreno, McGill & Maman, 2004).

Whilst there is no universally agreed STI partner notification target - given that it is supposed to be voluntary and must be tailored to the different country economic and cultural context,

the British Association for Sexual Health and HIV (BASHH) considers a partner notification rate for syphilis of 60% as significant (BASHH, 2007).

In terms of Namibia itself, a study conducted in three out of 13 regions of Namibia with the same partner notification strategies and practices in place, Mwilima (2006) noted a partner notification rate of 16% - 20%. This study was done across all levels of care in Caprivi, Karas and Oshana regions and included both urban and rural facilities. Whilst it can be argued that these three regions may not be a true representation of the country as a whole and Windhoek in particular, these figures are consistent with the lower limit of the global figures noted previously.

2.3 Barriers to Partner Notification

A number of studies have been conducted to explore the factors that lead to low partner notification rates in relation to STIs (Medley *et al.* 2004). These range from patient related or personal barriers which at times are associated with community perception of STIs, to partner or relationship dynamics barriers, and to health systems barriers. The various components across these three categories of barriers will be reviewed below.

2.3.1 Personal Patient-related Barriers to Partner Notification

In relation to personal or patient-related barriers a fear of rejection, potential abandonment and the threat of domestic violence - especially against women when telling a male partner that they have an STI, have been reported as main barriers to partner notification (Gorbach *et al.* 2000; Kissinger, Niccolai & Magnus, 2003; Wakasiaka, Bwayo, Weston, Mbithi, & Ogol, 2003; WHO, 2003; Medley *et al.* 2004).

In addition, Clark, Long, Cuadros, Caceres, Coates & Klausner (2007), in their study of 287 STD-infected participants who completed a questionnaire in a high-risk community in Lima, Peru the authors found the reasons for failure to notify partners included embarrassment, fear of rejection and inability to locate the partner. It has also been suggested that in cultures where women find themselves with less power and where they have to rely on their husbands for financial support, they fear losing this support if they were to notify their partner(s) that they have an STI (WHO, undated). Similarly, in a qualitative study carried out among female adolescents with an STI in the United States Kelly, Lovell & Aughey (2007) reported that fear and feelings of betrayal in terms of informing their primary relationship partner about their diagnosis were barriers to the members of this adolescent group notifying their partners.

Women with STIs also fear the accusation of infidelity which may lead to domestic violence western cape and quarrels (Wakasiaka *et al.* 2003; Faxelid *et al.* 1996). In a study conducted by Decker *et al.* (2011) in Northern California, USA among women attending five family planning clinics a history of sexual intimate partner violence (IPV) was associated with fear of partner notification. Lessons learnt from various HIV sero-status disclosure studies in developing countries have shown that 3.5% to 14.6% of women reported a violent reaction after HIV disclosure (Medley *et al.* 2004).

Stigma, which is often associated with diseases whose transmission has a moral or negative behavioral connotations has also been reported to be a barrier to partner notification in the context of STIs (Gorbach *et al.* 2000; Medley *et al.* 2007). For example in a study in a

township in Harare, Zimbabwe Winfield & Latif (1985) found that men in particular were reluctant to reveal names of contacts, especially if they were married as they did not want to be judged as promiscuous. In the Clark *et al.* (2007) study referred to previously, the authors similarly suggest that the social stigma associated with STIs was reported as a barrier to partner notification. Also Alam *et al.* (2010) in their systematic review noted that sociocultural factors like stigma would have a negative effect on partner notification. In their descriptive cross sectional survey conducted in two townships in Harare, Zimbabwe with people living with HIV, Tarwireyi (2005) describes how HIV-related stigma and discrimination can be experienced across three domains, namely, self induced, family induced, and community induced. All of which, they suggest, can reduce the capacity of the HIV positive person to feel confident about notifying their partner about their HIV positive status.

2.3.2 Partner or Relationship Dynamics RN CAPE

The nature of the sexual relationship between partners has also been cited as a barrier to partner notification. In their study aptly titled 'To Notify or Not To Notify' Gorbach *et al.* (2000) explored STI patients' perspectives of partner notification in Seattle, USA. The study was qualitative and involved in-depth interviews with 60 heterosexual men and women as well as 19 men who have sex with men (MSM). The study found that STI patients were more likely to inform their main partner as opposed to their casual partners and women were generally more likely to inform the perceived primary source compared to men who chose not to notify the perceived primary source. Steen, Soliman, Bucyana & Dallabetta (1996) in their study of STI patients attending two semi-urban primary health care centers in Rwanda, found that partner referral works best for index patients with regular sexual partners and older

people who were more likely to notify their partners than the younger age groups. In another qualitative study among patients presenting with a STI conducted in Nairobi, Kenya Njeru *et al.* (1995) reported high partner notification rates amongst both married men and women as compared to those in the casual partner group.

Similarly, in a study in Lima, Peru that has been mentioned previously Clark *et al.* (2007) found that 65% of the participants notified their primary partners and only 10.5% informed their casual partners. A similar finding was also reached by Wakasiaka *et al.* (2003) in a cross sectional study in Nairobi, Kenya which found that respondents with multiple sex partners were less likely to refer their partners compared to those who had one partner [17.9% vs. 82.1%]. The same study reported that where a partners was out of town this comprised another barrier to partner notification. The inability to locate the partner was also reported as a barrier to notification by Clark *et al.* (2007) in their Peruvian study.

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The tentative conclusion drawn from the above relationship dynamics is that STI patients in stable relationships are more likely to notify their partners than those in unstable, casual or commercial relationships. An index patient whose partner(s) stays in the same town is more likely to notify their partner(s) than an index patient who has a partner(s) staying in a different town or village.

2.3.3 Health Systems Barriers

Poor communication by health providers when counseling or talking to index patients about the need and importance of notifying partners has been identified as a barrier to partner notification. For example, Faxelid, Ndulo, Ahlberg & Krantz (1994) conducted a qualitative study in Lusaka, Zambia to find out the behavior, knowledge and reactions of patients presenting with a STI, concerning STIs and their implications for partner notification. In this study fifty women and an equal number of men were interviewed in two health facilities were partner notification was not functioning optimally. The study found that some patients were not asked to notify partners and the majority of women interviewed did not even know they were being treated for an STI. It is good practice for a health care provider to request the index patient to notify *all* their sexual partners. However in this study (Faxelid *et al.* 1994) it was found that patients were not necessarily informed by the health care provider to notify more than one partner despite some patients reporting that they would have been willing to notify their multiple partners had they been requested to do so. The authors (Faxelid *et al.* 1994) concluded that communication between health care providers and patients about STIs and partner notification needed to be enhanced in these two urban facilities because patients were not being given adequate information about the importance of partner notification.

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In the Peruvian study Clark *et al.* (2007) found that one of the reasons for failure to notify patients was ignorance of the importance of partner notification and that health care providers did not provide this information. Similarly the Kenyan study by Wakasiaka *et al.* (2003) found that counseling and informing STI patients about the importance of partner notification was an important component in improving the rates of partner notification.

In their randomized control trial conducted in Zambia to assess the impact of individual counseling of patients with STIs, Faxelid, Tembo, Ndulo, & Krantz (1996) noted that patients

in the intervention group (men who had individual counseling and also received partner referral slips) informed more partners than in the control group of men who did not get individual counseling and partner referral slips (Faxelid *et al.* 1996). Moyo *et al.* (2002) also conducted a randomized control study in Harare, Zimbabwe and similarly assessed the impact of a single session of counseling on partner referral. In the intervention arm patients were counseled by a trained counselor and the control group members received standard care which relied on the clinician to discuss partner referral. The study found that in the intervention group 92% notified or intended to notify their partner as opposed to 67% in the control group. The same conclusion was also reached by Alam *et al.* (2010) in their systematic review of barriers to STI partner notification in developing countries also reported that client-oriented counseling improved partner notification.

The lack of communication can also be a result of lack of knowledge on the part of the health care providers with respect to the importance of partner notification. Mathews *et al.* (2009) did a systematic review of partner notification strategies and suggested that health care provider training and patient education needed to be evaluated in developing countries as a way of enhancing partner notification.

The results from the above studies suggest that a lack of proper communication from health care providers as well as lack of appropriate counseling potentially serve as additional barriers to partner notification.

2.4 Partner Notification Strategies as Barriers

The method or strategy of partner notification that the facility might adapt can also hinder partner notification. What follows is a description of the key strategies that health care providers use and how each of them can be a barrier.

Traditionally three methods of partner notification have been used: patient-led partner notification – which is also referred to as patient referral and also known as passive contact tracing; provider referral (also known as active contact tracing); and conditional or contract referral (WHO, 2007; MoHSS, 2009).

With patient referral the index patient is responsible for notifying his/her sexual partner(s) and the health provider does not assist with this partner notification. It often takes the form of a simple referral where the health care providers do not assist or support referral, for example, giving counseling or referral slips Golden (2009). Simple referral does not allow the patient to understand the importance of partner notification and hinders notification. However, simple referral aided by counseling from the health care providers has been found to be effective (Njeru *et al.* 1995).

With provider referral the provider obtains the contact details of the index patient's sexual partner(s) and contacts them. This strategy can be perceived as a threat to confidentiality given that the patient might not be willing to have the partner(s) notified by the health facility. According to WHO partner notification should be confidential and it must be voluntary and

should not be initiated when the index patient is not comfortable with it (WHO, 2007). The threat to confidentiality can thus be a barrier. This strategy is also not cost-effective as it requires a significant amount of resources (such as the costs of telephone calls, home visits and the human resource costs associated with the provider's involvement in the notification process). As such it is difficult to implement in most resource limited settings. In addition, limited data supports the advantage of provider referral over patient referral (Golden, 2009). At times the two approaches can be combined in what is known as conditional or contract referral. With the conditional approach the index patient is given the responsibility of contacting partner(s) with the condition that if they do not do so within an agreed time frame, the provider will then follow up and notify the partner(s).

A newer approach, patient delivered partner therapy (PDPT), is yet another strategy to improve STI partner notification and partner treatment coverage (Golden *et al.* 2008). This approach is still patient-led but utilizes the index patient by way of giving them the same type of medication that they have been prescribed and asked to deliver it to their partner(s) whether there are symptomatic or not. The partner(s) does not necessarily have to visit a health facility. One of the disadvantages of this approach is that it involves a missed opportunity as the contacts will not get health education and counseling on risk reduction nor will they receive HIV counseling and testing (Golden *et al.* 2008). It also poses challenges in a partner who might be allergic to those medicines or may have potential contraindications, for example giving doxycycline to a woman who is pregnant or breast feeding. Another barrier with this method is that some patients are not willing to take the responsibility of giving the medicines to a partner and explain that it is for a STI.

Some studies have recommended use of cell phone text messaging for partner notification, whereby health workers formally notify partners via a short text message (Alam *et al.* 2010). Yet another new approach, internet based notification, has been introduced in some developed countries like the United States of America (Levine *et al.* 2008; Vest *et al.* 2007). This involves the index patient sending anonymous (or alternatively they can put their name if they so wish) electronic-post cards also known as e-cards to their source and secondary contacts. The e-card contains information about the type of STI the index patient has been treated for and encourages partners to go for a medical check up for an STI they might potentially have. An internet site, inSPOT (www.inspot.org) is one such peer-to-peer website that was developed in San Francisco (Levine *et al.* 2008). This is considered an easy, convenient and confidential way of notifying partner(s) but is based on the premise that most people have access to internet – an assumption that one cannot make in a country like Namibia.

2.5 The Health Belief Model (HBM) Conceptual Model

As previously mentioned partner notification is a vital element in breaking the chain of transmission of STIs. The development of educational programs to inform and support increased partner notification is a necessary link in this chain so as to achieve the desired outcome. In an attempt to influence health-related actions like partner notification it might be useful for health care providers to adapt and make use of common behavior change models that have been developed by others to help them design intervention strategies that will enhance partner notification.

The HBM a psychological model that focuses on the attitudes and beliefs of individuals and how this shapes their attitude towards taking a health-related action is one such model. It is premised on the basis that an individual will take a health action if there are perceived benefits. It was developed in the 1950's by Hochbaum, Rosenstock and Kegels (Glanz, Rimer, & Lewis, 2002). The HBM has been applied to problems of explaining, predicting and influencing health behaviors (Rosenstock, Strecher & Becker, 1988). The HBM assumes that an individual will take a health related action (i.e. notifying their partners) if firstly that individual feels that an adverse health outcome (for example infertility) can be avoided, secondly if they have a positive expectation that by following a certain health related action they will avoid an adverse health outcome (e.g. notifying partners will prevent re-infection and avoid infertility) and thirdly if they have self belief that they can successfully and confidently implement a health action such as notifying their partner(s) about a STI that they contracted.

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The HBM has four key concepts which could potentially assist health workers to develop effective counseling and health education programs that will promote partner notification: perceived susceptibility to a disease, perceived severity of the disease, perceived benefits of adopting a new practice and perceived barriers (Glanz *et al.* 2002). For example the conceptual model shown in Figure 1, indicates that individual perception of susceptibility to a disease (i.e. getting STI re-infection from a partner) leads to a likelihood of them notifying their partners. The figure also shows a complex of other modifying factors that help to achieve this expected outcome such as perceived threat (one's opinion of the seriousness and sequalae of the condition like infertility), demographics like age, sex etc., and the effect of education and media campaigns. Figure 1 also shows that the likelihood of behavior change is

expected when the perceived benefits of a health related action (i.e. partner notification) outweighs the perceived barriers.



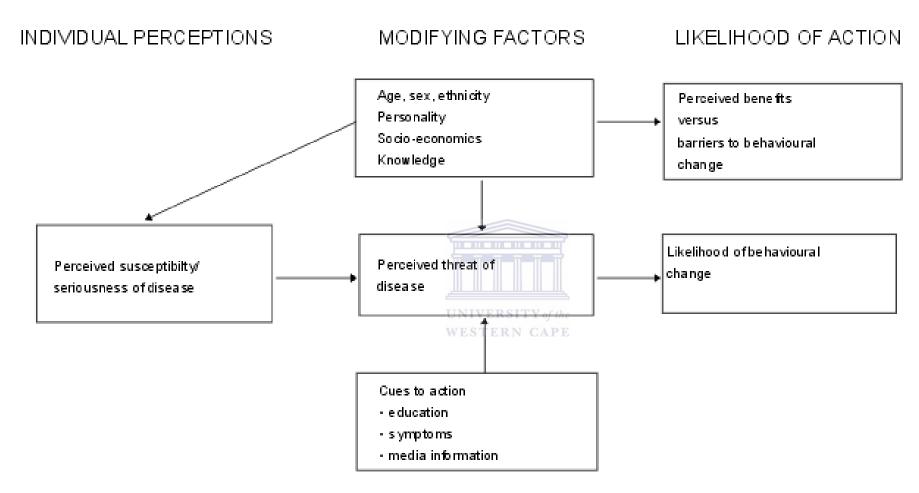


Figure 1 HBM Conceptual Framework

Source: Glanz et al. 2002:52

2.7 Conclusion

The various findings of the studies described above raise the question as to whether identical, similar and/or different barriers to partner notification exist in the Namibian context and, in turn, how they (or other barriers) might be contributing to the low partner notification rates that currently exist in Windhoek, Namibia. It also describes a theoretical framework (the HBM) that potentially can assist health workers to understand the barriers patients experience in relation to partner notification and develop educational programs based upon this theoretical approach that help promote partner notification.



CHAPTER 3: STUDY DESIGN AND METHODOLOGY

This chapter describes the research design and methodology used in conducting this study and the rational of using qualitative methods. It focuses on the study population, sampling procedure and the selection criteria of the study participants and the data collection methods and analysis. In order to ensure that the study findings are credible and valid, the chapter will also focus on methods used to increase rigour. Limitations and ethical considerations with respect to this study are also highlighted.

3. 1 Aim and objectives

The aim of this study was to explore the barriers to effective partner notification amongst new and follow up STI patients attending a primary level public health care center in the district of Windhoek, Namibia.

The specific objectives of the study were:

- To explore patient related barriers to partner notification at a primary health centre in Windhoek, Namibia.
- 2. To explore partner or relationship related barriers that impact on partner notification at a primary health centre in Windhoek, Namibia
- 3. To explore health services related barriers to partner notification at a primary health centre in Windhoek, Namibia.

3.2 Study Design

An explorative qualitative study using the in-depth interviews was conducted with patients seeking STI treatment as well as key informant interviews with health service providers. This technique was conducted to explore the beliefs, experiences and views patients with STIs and key informants had about the process of notifying partners and how a number of factors (ranging from patient-related barriers, the dynamics between a client and their sexual partner to health service barriers) interacted to bring about poor partner notification rates at an urban primary health centre in Windhoek district, Namibia.

Qualitative methods seek to explore and understand how people interpret issues related to health and disease and aspects of health behavior Baum (2008), in this study an STI and the importance of partner notification thus the researcher chose qualitative methods. According to Pope and Mays (1995), qualitative research designs are best suited to research that aims to explore health behaviors and peoples' beliefs and also how people experience phenomena. The same authors also note that peoples' feelings and experiences of certain phenomena cannot be measured in numerical terms like in quantitative studies.

As Gorbach & Galea (2007: 447) suggest a qualitative approach is particularly suited to research related to HIV and other STIs given:

...qualitative research is the study of the words and the significance of certain behaviors and seeks to answer why people practice certain behaviors and to describe the social organization of sexual interactions.

They suggest that there are primarily three scenarios where qualitative research methods can be applied in STI/HIV research (Gorbach & Galea, 2007). The first is where qualitative research methods are used at the formative stage or as a precursor in generating ideas which will then be used to conduct larger quantitative studies. Secondly they can be used to interpret and help explain the findings of quantitative studies or quantitative patterns. The third scenario is where both quantitative and qualitative methods are used simultaneously and convergence patterns are then noted. In this research initiative qualitative methods were applied in order to interpret and help explain and gain a better understanding of the reasons for the reported low partner notification rate (a quantitative pattern) – and thus relate to the second scenario (see figure 2).



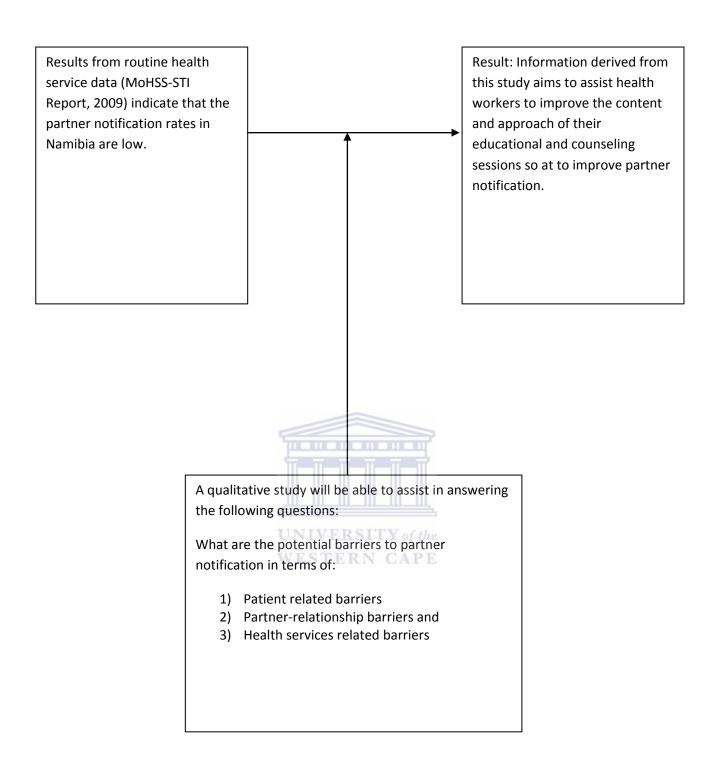


Figure 2: Rationale (model) for use of qualitative methods in this study

3.3 Study Population, Sample Size and Selection Procedure

The study population consisted of all patients (aged 16 years and above) who were attending Ushe Health Centre for an STI-related consultation: either for (a) a new or a recurrent STI episode or (b) a follow- up consultation of a previously treated STI.

However, given that Namibian law stipulates that only those who are 16 years and above can provide informed consent - on their own, and without parental or guardian consent - to participate in a research study a minimum age limit of 16 years was set for potential study participants. Thus clients younger than 16 years, along with cases presenting after sexual assault (e.g. rape) and patients with mental disorders, were excluded as potential participants of the study.

In addition, women presenting with vaginal discharge syndrome (VDS) were included in the study *only* if they met the risk assessment criteria as per the Namibian STI guidelines (MoHSS, 2009). The risk assessment criteria take into consideration behavioral risk factors (such as having a partner with an STI), having unprotected sex with a new partner in the past

months. These criteria have been established because most women with VDS (72%) do not have an STI (MoHSS, 2007b).

three months and/or having unprotected sex with more than one partner in the past three

Bearing these exclusion criteria the researcher then chose to use a maximum variation sampling strategy i.e. to attempt to obtain a heterogeneous sample in order to access a range

of points of view and experiences about the issue of partner notification. In this regard an attempt was made to sample patients in such a way that gender balance was maintained, along with a mixture of 'older' patients (25 years and above) and younger patients (> 16 - 24 years) as well as married (or those in stable relationships) and unmarried participants.

The researcher did not purposively select a specific number for patients from the two categories (i.e. a new episode of STI and a follow-up STI consultation) – but rather made the selection of patients on the basis of their willingness to take part in the study. Eight participants (four male and four female STI patients, six of which were attending the facility for a new STI episode) made up the final study sample.

The patients that formed the study sample were selected to participate with the assistance of the Sister in Charge or her Deputy - who were responsible for daily screening of patients in outpatient care. These two nurses introduced the study to potential study participants and explained the informed consent process to them. All the participants who agreed to participate in the study were given standard treatment for their STI(s) before being interviewed by the researcher. The research was conducted from March 2010 through to May 2011.

Although the researcher attempted to recruit more than 8 STI patients into the study – so as to ensure that data saturation or redundancy was achieved i.e. when no new information was being gathered through the interviews with participants, it was not possible to reach a point of data saturation. One of the reasons for this being that the researcher, working through the two staff members who were recruiting patients into the study, found that a large proportion

of STI patients, and in particular younger women, were reluctant to be interviewed as they were worried that the interviews would be broadcast on radio or television. This was despite the fact that all potential participants were provided with information about the purpose of the study and reassured that the information they provided would be kept confidential.

Another limitation was that the researcher does not speak any one of the local Namibian languages such as Afrikaans, Oshiwambo, Otjiherero or Nama-Damara fluently and given that he wanted to obtain firsthand experience of the interview process, interviews could only be conducted with participants who were well versed in English. However, in the event that at the start of the interviews participants indicated that they would in fact feel more comfortable with having a translator present to assist in the interview a lay counselor (who worked at the same health facility and who was familiar with the local languages) was then asked to assist in the interviews. Translation assistance was required in two of the eight interviews.

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In addition to the 8 STI patients interviewed, three key informants – all of whom were health care providers with at least three years experience of providing STI related consultations. The 3 health care providers were recruited into the study so that they could provide rich or thick information on partner notification – to complement the data obtained from the patients. Those included were one of the senior medical officers at the health center, the deputy sisterin charge of the out-patient clinic and a senior counselor. The deputy sister in charge was one of the few nurses at the health center who also had prior training in the revised Namibian STI guidelines of 2009. The three were thus considered experts in providing STI related care and counseling at the facility.

3.4 Data Collection Methods and Interview Process

Two data collection methods were used: semi-structured, in-depth individual interviews with the sample of 8 STI patients and individual key informant interviews with the three key informants. The researcher chose to conduct individual interviews - as opposed to focus group discussions- with the STI patients given that the topic under discussion focused on the participant's sexual life and behavior – a notably sensitive topic and one which requires greater privacy and confidentiality. The discussion of such a sensitive issue like having an STI – along with recounting whether and how one notified a sexual partner or not, would not be appropriate to discuss in a group and interviews were thus done on an individual rather than in a group basis.

For the individual in-depth interviews with the STI clients a semi-structured interview guide was designed which included demographic information such as the age, employment status, western cape level of education, marital status and length of relationship (see Appendix C). The study participants were also asked about their perceptions regarding the importance and benefits of partner notification and possible reasons for not willing to notify partners. Participants were interviewed in a quiet room in the clinic which provided them with the necessary privacy. All the interviews were audio-recorded and later transcribed verbatim. Non audible data such as pauses, laughter and body gestures were also captured in the transcripts. The researcher transcribed two of the eight interviews himself and the remaining six were transcribed by a journalist who is also a professional transcriber. These 6 transcripts were double-checked for accuracy by the researcher ensuring that the names of the patients were removed and replaced with the patient's initials.

For the 3 key informant interviews another interview guide was constructed which included questions about what the key informants considered as the key issues about patient's reluctance to notify their sexual partner(s) and how they believe these barriers can be addressed (see Appendix D). These interviews were also audio-recorded and transcribed verbatim by a colleague of the researcher who had experience in transcribing interviews.

3.5 Rigour

Rigour refers to a set of criteria used to judge the credibility, validity or trustworthiness of a qualitative research project. Some critiques of qualitative research regard it as subjective in nature and void of scientific facts (Malterud, 2001). Thus attention to rigour in qualitative research is meant to neutralize bias and defend it against threats to validity (Sandelowski, 1993). One method of ensuring rigour is to use triangulation where the researcher uses multiple and different ways of collecting data on the research topic and seeks to finds patterns of convergence in the data (Creswell & Miller, 2000). In this study data collected from the 8 in-depth interviews with STI patients attending the facility was triangulated with data collected from the 3 key informants working at the health facility. Data source triangulation was also done whereby data collected from this research study was compared to findings from other studies conducted on the same topic within a similar context through a review of literature.

Another method of ensuring rigor within this study was to keep an audit trail in the form of field notes that the researcher kept during the course of the study. In addition, two sets of

interview guides (one for the STI patients and the other for the key informants) was developed and adhered to so as to ensure that all study participants were asked the equivalent questions and in the same order. The eligibility criterion was strictly adhered to and participants who did not meet the criteria were not included in the study. The researcher also sought the assistance of a colleague with experience in qualitative research who coded two of the STI patient interview transcripts and provided critical feedback to the researcher on the study as a whole and on the analysis of the data. All the interview transcripts were coded by the researcher. The two STI patient transcripts that were coded by researcher's colleague were also coded by the researcher's supervisor. This allowed for some independent reflection and analysis of aspects of the data given that all three (the researcher, his colleague and supervisor) worked independently on their interpretations of the transcripts — after which the researcher distilled the 3 interpretations and drew together the final code list and the analysis.

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Yet another procedure used to ensure validity of the study was researcher reflexivity. The researcher's own beliefs and assumptions on what he perceived to be the barriers to partner notification were described and disclosed (see Appendix F).

3.6 Data Analysis

The recordings and later the transcripts from the 11 interviews conducted formed the raw data of this study. Preliminary analysis of the data was done concurrently with data collection which meant that as the researcher collected the data in the initial interviews it was reflected on and helped to shape and direct ongoing interviews - a process which is referred to as continuous analysis by Pope, Ziebland & Mays (2000). The majority of the data analysis

process did however occur after each of the interviews had been transcribed and the researcher then read each of the transcripts over a number of times. Whilst reading through the transcripts the researcher then began to develop codes and identify themes.

As previously mentioned all the transcripts were coded by the researcher with two of the transcripts being independently coded by both the researcher's supervisor and a colleague and peer. The researcher's supervisor also coded an extra (third) transcript of one of the STI patients. The researcher compared all the codes developed from the transcripts by his supervisor, his colleague/peer and the ones he had developed and on the basis of this collective analysis work choose a final list of codes for the remaining transcripts. In analyzing the data the researcher looked for patterns and main themes relating to the individual client, their partner and relationship(s) and their engagement with the health systems – all of which were reported as barriers to partner notification in various combinations by the participants.

3.7 Study Limitations

The sample size of this study was small (11). Sampling to redundancy amongst STI patients was not possible in this study due to a number of reasons: the limited budget that the researcher had available to conduct the study; the guidelines established for a mini-thesis that suggest the number of participants be limited to between 8 and 12 in a qualitative research study for mini-thesis purposes, and well as the reservation expressed by STI patients to participate in the study.

Another limitation of the study was the potential effect that the researcher, being a medical doctor and working for the MoHSS, might have had on the content of the interviewee's responses – possibly contributing to the participants sharing more of what they *thought* they ought to reveal to a health worker rather than what they really felt or experienced. Although the researcher did not work directly in the study site and did not introduce himself as a medical doctor (but rather as a Health Worker), his stated affiliation to the Ministry of Health would none the less have had some influence over the STI patient's responses to some of the questions. In addition, the presence of the Lay Counselor who worked at the same facility in two of the interviews could also had an influence in what the participants said given they knew he was a health worker at the center.

Language was another limitation. In this study participants were selected on the basis of whether they spoke the same language as the researcher, i.e. English. This was both to reduce the interruptions and the flow of the discussion during the interviews and the desire of the researcher who, being a masters student, wanted to gain firsthand experience of conducting qualitative interviews himself - rather than having a field researcher conducting the interviews - or work indirectly through a translator. Using English as the main medium of communication for the interviews was likely to exclude some of the potential participants (patients) who did not obtain a formal education and are thus potentially were not able to speak English. The findings of the study are therefore likely to reflect the views of those patients with a primary (or higher) level of education. However, using English as a medium for the interviews was not considered to be a significant limitation given that 90% of women and approximately 84% of men in Windhoek have completed at least a primary school education and are thus bi-lingual and most can speak a bit of English (MoHSS, 2008c).

Given the study was only conducted in one public health facility – situated in an urban area - the findings are thus limited to the experiences and perceptions of those that attended the public health facilities and not, for example, more professional community members who have medical insurance and are generally seen in the private sector.

3.8 Ethical Considerations

The study was conducted after approval was obtained from the following institutions:

- The University of the Western Cape Ethics Committee
- The Namibian Ministry of Health Ethical Review board, i.e. the Policy Management and Development Review Committee (PMDRC)
- The office of the director of Health for Khomas region the region in which the study site is located.

With regard to ethical considerations the researcher ensured that he provided potential participants with sufficient information to make an informed decision and thus provided each potential participant with an information sheet (see Appendix A), and later – if agreeable to participation - requested them to provide their informed and written consent to participate in the study (see Appendix C).

The nurse in charge of screening patients at the health centre and her deputy were responsible for identifying potential STI patients and introducing the nature and purpose of the study to

them. Similarly, key informants were informed about the study by the researcher and their written and informed consent obtained prior to the interview processes. All participants were informed that the study was going to be used by the researcher to obtain a Masters degree in public health.

Participation in this study was voluntary and participants were informed of their right to withdraw from the study at any time without any negative consequences arising from their non-participation and without the need to give any reasons for their withdrawal. Before taking part in the interviews the STI patients received the standard STI treatment in accordance with the Namibian Syndromic Management of STIs guidelines. This was to ensure that they would not feel they would only get treatment if they participated in the interview. In return for their time participants and key informants were given a small token of appreciation of 50 Namibian dollars (equivalent to fifty South African rands).

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Given the subject matter and the care that was taken to inform participants about the study and ensure their informed consent, none of the participants was placed at risk or harmed in any way during the process of the study. None of the participants required counseling during or after the interviews although the researcher had made prior counseling arrangements in case it was needed.

A high level of confidentiality was strictly adhered to during the study. To ensure confidentiality the interviews were carried out in a private room. All consent forms, tapes and transcribed materials were (and still are) locked in a safe cabinet in the office of the

researcher. Transcribed material was cleaned and any identifiers such as names removed and replaced by pseudonyms. All health workers involved in the study were informed of the importance of ensuring privacy of personal information.



CHAPTER 4: RESULTS

This chapter presents the findings of the study. It begins with a description of the characteristics of the study participants and then presents the key results, all of which are grouped under the three relevant study objectives, namely:

- 1. Patient related barriers to partner notification
- 2. Partner or relationship related barriers that impact on partner notification
- 3. Health services related barriers to partner notification.

4.1 Demographic and Sample Characteristics of Key Informants and STI Patients

Key informants were chosen on the basis of their experience with STI-related consultations or counseling and/or prior training on Namibian STI guidelines using the Syndromic Approach. In this study all 3 purposively selected key informants had more than 3 years experience of working at this particular health center providing STI care among other clinical duties (given STI care is integrated into the primary health care system in Namibia) and were thus considered to have expert knowledge on the prevention and control of STIs.

The first key informant, a medical doctor working at the primary health center for close to 3 years, provides STI care to those complicated cases that would have been referred to him by the professional nurses among some of his clinical duties. The second key informant, a professional nurse with 3 years of experience, is responsible for first screening and then

treating uncomplicated STIs and referring on to the doctor difficult cases. Both the medical doctor and the nurse work in close collaboration with the third key informant, a lay counselor who also does HIV counseling and testing. The counselor provides STI patients with risk reduction counseling however not all STI patients are seen by the counselor as they are not dedicated to STI work only and thus have a range of other responsibilities and time constraints.

For the in-depth interviews there were 8 study participants: 4 males and 4 females, all of whom were attending the clinic because of a STI. At the beginning of each interview some basic demographic characteristics and characteristics related to their relationship status were collected. These included the participant's age, gender, socio-economic status, type of relationship, length of relationship, whether the STI was a first episode or a repeat episode and whether they intended to notify their partner(s) or not. For those who had an STI before they were also asked if they did notify their partner(s) when they had the previous episode.

Table 1 overleaf gives an overview of the description of these interview characteristics.

Table 1: Summary of Demographic and STI-related Characteristics of Participants⁴

	Sex	Age (yea rs)	Highest educational level obtained	Employment status	Relationship status	STI episode (1 st episode or repeat)	Partner notification history /intention
1	Male	19	Secondary	1 st year student at University of Namibia (UNAM)	Stable relationship, more than 3 years with same partner.	2 nd STI episode	No intention to notify (did not notify 1 st episode)
2	Male	22	Secondary	UNAM student	Stable relationship for 4 years	1 st episode	Intend to notify
3	Male	38	Primary	Cleaner	Married for more than 5 years	1 st episode	Intend to notify
4	Male	51	Primary	Builder and Painter	Stable marriage since 1981, episode.	1 st episode	Intend to notify
5	Female	27	Secondary	Diamond Polisher	Single, unstable UNIVERSITY of the	2 nd episode	Did not notify first episode. Intend to notify 2 nd episode
6	Female	22	Secondary	Bar waitress	Unstable 6 months relationship with "sugar daddy"	1 st episode	No intention to notify
7	Female	48	Secondary School	Domestic Worker	Divorcee but in current relationship for 8 years	Recurrent	Intents to notify
8	Female	37 years	Primary school	Employed in a restaurant	Unmarried but has a stable partner. They live in the same location but do not live together.	1 st Episode	Intends to notify her partner

-

 $^{^4}$ Interviews with Participant # 4 and Participant # 8 were conducted in the presence of an interpreter.

As can be seen from the data above, participants ranged in age from 19 years to 51 years with the median age being 32 years. In terms of employment two were university students, one was employed as a diamond polisher and the remaining five were all employed as general workers. Three participants had at least a primary level education and the remaining five had a secondary level education. In terms of relationships, two out of the four females were reportedly in a stable relationship and all four males reported that they had stable relationships. Five were attending for a first- new STI episode-, six out of the eight participants reported that they intended to notify their partner about their STI. Three participants were coming with a re-infection of a STI and of the latter only one had notified their partner the previous time they had an STI.

4.2 Patient Related Barriers to Partner Notification

The study findings point to a number of inter-related patient-related barriers for not notifying western cape partners and include things like social stigma associated with having an STI which is influenced by culture and religion, the fear of losing one's partner, the fear of infidelity accusations and ignorance about the importance of partner notification from the patient's perspective.

4.2.1 Social Stigma Associated with STIs

Most participants felt that the stigma associated with diseases with a negative behavioral connotation like STIs was a major barrier to partner notification as people are not free to discuss openly these issues. All but one of the participants noted that STIs are associated with socially unacceptable behavior. One female participant described STIs as "unusual". When asked why some people would not want to notify their partner(s) she explained:

"Well its coz of fear, when you encounter such a thing which is unusual you are afraid... as a society we normally fear and [are] shy about talking sex openly and STIs".

Female participant # 5

This was also highlighted by a key informant who provided further explanation:

"I don't know, I think it's the whole issue of stigma you know. Because like in our culture these sexually transmitted infections are classified, they call it a shameful disease. So people feel ashamed to go and reveal this information (about the STI that they have) to the second person whether it's your partner or friend or what, they don't reveal this information. I think the main problem here is stigma that is attached to the sexually transmitted infection".

Key informant medical officer
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There was considerable congruency between what the participants and the three key informants said about how much stigma is associated with STIs. In general it was suggested that because STIs are so stigmatized anyone with an STI is afraid of disclosing they have one because it is something that is so stigmatized. One male participant and the key informant medical officer suggested that what compounds this stigma associated with a STI is the fact that some people know that having contracted an STI it might very well imply that they have also contracted HIV – something which is obviously highly stigmatized in its own right.

One young male participant suggested that he was only willing to tell his partner his HIV test result (which was negative) and not the STI which he had learned he had. When asked if he

had notified, or if he intended to notify, his partner about the STI he was adamant he was not going to disclose to his regular girlfriend given he had sex with another woman outside of his primary relationship:

I am not going to tell her... I told her about the HIV test which is negative and not the STI.

He further explained:

The thing is I had not had sex with her but with someone else... now you have to explain (where I got the STI from)... coz now days STIs there are, there are...they go hand in hand with HIV.

Male participant # 1

The relationship between STIs and HIV as a barrier to partner notification is also supported by the medical officer who explained:

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(For the) majority of people it's like taboo; kept very sacred. Some know the relationship between STI's and HIV. And HIV being a deadly disease some people fear to be pointed a finger that "He has an STI therefore he has HIV."

Due to this someone does not come easily to the surface and says this is what's happening (that they have an STI).

The same key informant also went on to explain that ignorance was also a significant barrier to partner notification as the majority of patients did not seem to understand the importance of telling their partner about their STI. When asked about what he felt the major challenge to partner notification was he raised the issue of ignorance:

I think the major challenge which we are facing is ignorance. I mean (the) majority of the patients (are ignorant about the importance of partner

notification) though health providers are trying to explain to them how people contract diseases (STIs), it seems no one understands what is going on. You treat a patient and tell them to bring their partner next time, but they do not come.

Key informant medical officer

4.2.1.1 Cultural and Religious Sensitivities Associated with STIs

Another reported barrier linked to stigma, was the discomfort people felt with discussing subjects associated with the genital area – discomfort which was attributed to cultural and religious norms and beliefs. As one key informant explained, even 'milder' topics like family planning do not appear to be openly discussed with partners:

Some are having religious and even cultural (views). Some people are having negative views even about family planning. So for some subjects they will just ignore the message for ... for these STIs. So they will be religious not to be comfortable or openly talking about these kinds of subjects to their partners.

Female key informant, Counselor

There was one disconfirming view on the issue of social stigma. After finishing the audio-taped interview and during an informal discussion post this interview, one key informant explained that there is some degree of prestige or status associated with having an STI in a particular Namibian tribe - especially urethral discharge in men. As the key informant said, "It's a sign that one is a bull." In such instances where the STI is regarded as having a positive 'value', the key informant felt that men did not then feel compelled to inform their

partner(s) about their STI – given it was not culturally regarded as something that was abnormal or as having negative connotations.

4.2.2 Fear of losing the relationship following STI disclosure

Fear of how the other partner would react to the information about an STI was another commonly reported barrier by both the participants and the key informants. Asked to elaborate on the issue of fear, participants reported fearing conflict that may be created in the relationship, fear of being accused of cheating, fear of losing their loved ones and also fear of domestic violence.

Most participants felt that telling one's partner about their STI and informing them that they (the partner) could also be potentially infected with the same STI was difficult given they feared they would then be labeled as unfaithful and this in turn might lead to disharmony in the relationship and even a potential separation. As a result, some participants felt it was better not to notify their partner of their STI given they might risk losing that partner. As one older female participant put it:

"...sometimes you are afraid to lose that person ... telling them you have an infection might scare them away..."

Female participant #7

A young female participant who was having an affair with a "sugar daddy" also did not intend to notify him of her STI and reported similar sentiments as the previous participant:

"Aiye (an emphatic No) ... I aint gonna do that [waving her right fore finger in the air] ... what if he thinks I am cheating on him and then he drops me?"

Female participant #6

The fear of accusations of infidelity was also mentioned by another female participant:

In my opinion I think its coz of fear, you are afraid of how people are going to react about it especially your partner coz you might think or you think your partner will accuse you of being unfaithful...

Female Participant #8

One young male participant vowed he was not going to notify his girlfriend since he knew he cheated on her and if this became to be known to the girl friend this would lead to their separation.

The issue of relationship discord was also highlighted by another young male participant who had notified his long time girl friend about the STI that he had. When asked how the relationship was after breaking the news to her, he had this to say:

"I think it's rocky since the STI story coz she never told me about it (that she had a STI)".

Male participant # 2

Although the research did not explore whether this participant had had another sexual relationship outside of his primary sexual relationship, the participant - by saying "she never

told me about it" clearly felt that he got the STI from his girlfriend and was noticeably upset about her non-disclosure.

The fear of losing one's partner and being blamed for what happened was also corroborated by one key informant who explained:

The only thing I see is...it is like people will start with stigma. People are afraid that of I go and tell my partner, I will be losing him; I will be blamed for what happened and all the fingers point at me and all those things.

Female key informant, counsellor

A young female participant also suggested that she feared being beaten up if she revealed to her boyfriend that she had an STI and he must also be treated.

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An older female participant whilst she intended to notify explained that she was ashamed because of her age – 48 years- as at that age she believed one should not be getting STIs. She explained:

I am a little bit afraid... I am so ashamed-because [at this] age you want to keep your side clean.⁵

Female participant #7

⁵ What the participant is referring to here by saying 'keep your side clean' is that she was not the one who contracted the infection from someone else.

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In general it would appear that fear (for example, of how a partner would react on notification) was a key barrier reported by most participants and this fear was also re-enforced by social stigma attached to STIs.

4.3 Partner or Relationship Dynamics Barriers

In relation to the barriers associated with an STI patient's partner or their relationship(s), participants and key informants suggested that these were mainly influenced by power dynamics in the relationship, the type of the relationship (for example, a formal marriage or an informal sexual liaison) the number of years in a relationship, the nature of the relationships between partner(s) and the physical distance between partner(s) which can lead to inability to locate partner(s). These are further elaborated below.

4.3.1 Power Dynamics between Partner(s) N CAPE

Generally, participants who depended on their partner(s) for financial support did not intend to notify. Some female participants noted that they had a low income as compared to their male partners and did not want to lose their partner's support and financial benefits. One young female participant made it clear that she would definitely not notify her partner for fear of losing his financial support. This 'sugar daddy' or 'economic' type arrangement —was identified as a critical barrier to partner notification in her case as she explained:

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What if I tell him and he then beats me up... and then, and then there is no one to support me, you know, ehh like doing my hair...

Female participant # 6

Another female participant also highlighted the issue of male dominance in a relationship:

...seeing most of the times the boy friend... the males are normally the dominant ones. You want to be on his backside (to be in good standing with him) but at the same time you are risking your life...

Female participant # 5

4.3.2 Type and Length of Relationship

All participants who were married or had been in longer term relationships were more likely to notify their partners than those who had casual partners or relationships of a short duration. For example, a male participant who had been in a relationship for more than 4 years was willing to notify his partner since they had come a long way together. When asked what motivated him to notify his partner he explained:

Because I have her best interests at heart. This is a problem that not only affects her or me - it affects both of us so that's what motivated me to talk with her.

Male participant # 2

This was also supported by another old male participant who had been married for more than 30 years:

I thought that since I am infected with an STI, I thought about my wife, that I could infect her. So I thought it best to bring her in so that she can also get treated as well.

Male participant #4

In contrast, one male participant said he was not going to notify the partner who gave her the STI because it was a 'one night stand':

It was just a one night stand... I don't know where she stays...

Male participant # 1

This is corroborated by one of the key informant who explained:

...and then for the one night stands, sometimes you don't know the person. You just met maybe at the bottle store or wherever you met the person and then you don't know where the person is staying or what. So when you become sick (contract a STI) and you have to inform the partner, you don't know where to find the person.

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Female key informant, nurse

Young and single female participants who were in unstable relationships also had problems in notifying their partners. One female participant who was single and described her one year relationship as unstable, when asked if she had notified her partner explained:

Well I haven't told I haven't told anyone about it, it was something in me that told me I should go to the clinic and find out exactly what is the problem...

Female participant # 5

4.3.3 Guilty Feelings as a Result of Infidelity

Participants who had extra-marital affairs or had sex with others, beyond their primary partner, and felt guilty for this unfaithfulness appeared to find it difficult to then consider notifying their partner.-given the STI would be an indicator of unfaithfulness. As one young male participant explained that he was not going to notify his girlfriend since he had not had sex with her but a casual partner.

The thing is I had not had sex with her (when he felt STI symptoms it was after sex with a casual partner and not his primary partner) but with someone else...



Male participant # 1

One of the key informants (the nurse) offered the following explanation:

Ok in terms of those who are married, the problem will come in when for example if you have been cheating and you have to communicate this information to your spouse then it will be a difficult because you are afraid sometimes that he is going to say you have been cheating. And you know when you are cheating you don't want to be caught so you decide or rather chose not to tell him/her.

Female key informant, nurse

From the point of view of this key informant it is difficult for married people to notify their spouses as their fear to be accused of infidelity.

4.3.4 Physical Distance Between Partners as a Barrier to Notification

Participants who had partners staying out of Windhoek district or in another town (which was the case with 2 participants) reported that they were unlikely to notify the partner as they were unable to locate them. As one man said:

The problem is only that my partner went to Walvis Bay and I don't know how to find her...

Male participant # 3

This was supported by one key informant who explained:

Yes, sometimes also distance, when the partners are far away from each other, for example they only just met maybe in Windhoek, a partner came for a weekend and then has to go away. After that maybe one got sick so when she comes to the clinic and she has to notify the partner, maybe the partner is far away so it becomes a problem for them to communicate with each other.

Female key informant nurse

From the research it seems people who are staying far away might not have the appropriate means to communicate with the partner such as telephone and thus hindering partner notification. However, from the female key informant nurse it would appear the issue of distance as a barrier relates more to casual relationships.

4.3.5 Communication Within the Relationship

Partners who suggested they did not communicate well in their relationship in terms of sexual issues, as well as in terms of supporting each other when one is unwell, suggested they were less likely to notify their partners than those who suggested they were able to communicate more openly about matters, including sexual issues, within their relationship. For example, one young female participant had difficulty in communicating with her much older partner about sexual matters thus making it difficulty for her to consider notifying him about her STI. When asked if she was comfortable discussing sexual issues with her partner she responded:

Ja (Yes) we kinda talk about condoms... ja but not STIs and other stuff...

Female participant #6

In contrast those participants who suggested that they had a good sense of communication between them were more likely to suggest that they would be able to notify their partner about their STI. This was supported by a female participant when asked what could encourage partners to notify:

I think it comes down to being honest and it's just honest and trust and communication of course, coz (because) if you are in relationship you should be able to discuss anything with your partner.

Female participant #8

One male key informant medical officer explained:

The challenges might be, I think the patients that are treated themselves who are having the STD's, they are sometimes afraid to communicate this information to their partners or they don't feel free to communicate this information to the partners...

Lack of openness in discussing sexual matters between partners was suggested to be another additional barrier to notification

4.4 Health Systems Barriers

Three main health services related barriers were identified in this study: firstly, health care providers not giving enough information on the importance of partner notification secondly, the approach to partner notification and thirdly, the attitudes of health workers. These three barriers will be elaborated upon in this next section.

4.4.1 Lack of Sufficient Counseling and Health Education

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All the 8 participants who were interviewed mentioned that they were told by the health care providers to notify their partner(s) to also come for treatment. However, most of them mentioned that there were never told the rationale for doing this or the importance of notifying the partner(s). They were also not given information or materials to help them in informing their partner(s). It seems they also did not get risk-reduction counseling from health workers. As one male participant put it when asked if he had got any material or information to help with notification:

Ah they gave me nothing... I was not asked to come back for review.

Male participant # 4

The Namibia STI Guidelines requires that one is reviewed after a week, this is an opportunity to see if the patient has responded to medication and if they notified their partner(s) or not Another female participant also said:

No I was just told to tell my partner opuwo (that's all)... they (the nurses) did not explain anything to me.

Female participant #8

However, all the key informants suggested that counseling and health education were important components in terms of improving partner notification- although from the patient's perspective this was not being done. This was highlighted by one key informant:

...the community needs to be made aware that when people are treated with sexual transmitted infections, they need also to tell their partners to be treated or it's very important that their partners even if they don't have the signs and symptoms, that they are treated. Then I think we just have to reemphasize or make the partners understand that they have to inform their partners, but then we have to give them now or reintroduce the notification cards.

Female key informant, nurse

Another key informant had this to say:

Individual to individual (counseling) as patients come could be a starting point. To encourage patients to come with their partners. Apart from this we can try to make people understand through the various media; radio, TV...

Another key informant also felt that apart from patients themselves, health providers themselves may not have adequate information/knowledge to give to patients to facilitate partner notification.

It can be between partners (lack of information) and it can be between health workers. Yes and even a lack of knowledge. People don't have the surety of discussing this kind of subject because they don't have information on/about certain STI's.

Female key informant, counselor

The last key informant brings in another dimension of lack of knowledge about the importance of partner notification among some health workers as opposed to the patients as a potential barrier.

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4.4.2 Approaches to Partner Notification

As described in the literature review there are four traditional approaches to partner notification namely: patient referral, provider referral, contract referral and patient referral with supply of medications for the partner which is called, expedited patient delivered partner treatment. The current approach at Ushe health center is the first: patient referral without supply of medications for the partner(s). These approaches were explained to all participants by the researcher. Most participants, especially females preferred expedited patient delivered partner treatment (where they are given medicines for the STI they have been treated for to give to their partners). They explained that this would work well especially for partner(s) who did not want to visit a health centre more so if they didn't have any symptoms; as one female participant put it:

... I prefer (health workers) to give me tablets to give to my partner... some partners are very difficult...

Female Participant #8

This was also supported by another female participant who explained:

... In my opinion, since number 1 and 2 (patient referral and provider referral) is not working I think number 3 (patient delivered partner treatment) will be the best this way the partner will feel like nobody else knows about it, so me giving him tablets will be better he will just be taking and be clear (cured) from infection.



Female participant # 5

However, all the key informants felt that the current practice (patient referral approach **WESTERN CAPE** without supply of medications for partners) was the best given they felt that provider referral would violate patients' confidentiality. One of the key informants had concerns about supplying medication to the patients to deliver to their partner(s) because of such issues as allergies. The key informant explained:

Mainly, (because of) so called confidentiality and rights of the patient. Patients have their rights, I have the right to protect the community and this is somehow a conflicting situation. Suppose you have a patient and you give him seven days to notify the partner. The same patient has the right for his secrecy to be protected. The voluntary information from partner to partner is the best one [method] in my opinion because it accommodates all situations.

Another key informant also shared the same sentiments:

I think it's the first one [patient referral] because it's not our place to go and inform the partner or even go and call the partner to tell them about the status of his/her partner. What we can do is that we can tell the specific patient to go and tell their partner and also to bring the partner for testing and also to convince the partner to come for counseling also. That's what we can do.

Female key informant, counselor

The last key informant was clear on the need of the partner to visit a health facility rather than be supplied with medication through a third part. The likely reason for key informants preferring patient referral without medications was mainly based on the issue of maintaining confidentiality and missed opportunities for partners (e.g. risk reduction counseling and HIV tests) whilst participants were comfortable delivering medication themselves especially for difficult partner(s).

4.4.3 The Attitude of Health Care Providers

According to the Namibian STI guidelines health workers need to give information about STIs and intervention strategies like partner notification in privacy and ensure confidentiality (MoHSS, 2009). In most cases participants reported that their consultations were done in a confidential manner and most participants reported experiencing a good patient- health care provider relationship. However, it seems (as previously mentioned) this did not extend to health workers giving sufficient health education and risk reduction counseling.

In one interaction however a female participant reported feeling embarrassed by a nurse who was doing a pap smear on her when she had a recurrent STI, apparently after seeing her vaginal discharge:

I was disappointed by a nurse who was doing a pap smear on me and she exclaimed 'Sies!' (showing disrespect and insensitivity)... this makes one so uncomfortable to even tell their partner.

Female participant #7

From the findings presented in this chapter, it can be seen that there are number of complex factors from the participants' point of view as well as the key informants which serve to either hinder or facilitate partner notification. The next chapter focuses on a discussion of these findings and their implications for strategizing around partner notification at the Ushe primary health centre specifically - and potentially in other similar centres in the district.

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CHAPTER 5: DISCUSSION

This chapter discusses the relevant study findings with respect to the study aim and objectives namely; to explore the barriers to partner notification amongst new and follow up STI patients at a primary level health care centre in the Windhoek district. The study findings are compared and contrasted with relevant literature reviewed in Chapter 2. In addition, specific reference is made to the use of a behavior change model, the Health Belief Model (HBM), as a possible conceptual framework that health workers could use in providing additional support to their clients in order to increase the possibilities of partner notification.

5.1 Patient Related Barriers to Partner Notification

In this study the patient related barriers reported by participants ranged from social stigma attached to STIs to the fear of how a partner would react after disclosure. Similarities are also drawn from HIV disclosure studies.

5.1.2 Social Stigma associated with STIs

A number of studies mentioned in the literature review have reported that the social stigma attached to STIs by the community hinders partner notification (Medley *et al.* 2007; Clark *et al.* 2007). In this study there was considerable congruency between what the participants and the three KIs interviewed said about the implications of social stigma on partner notification. They all felt that the stigma attached to STIs or diseases of the genitals was a significant barrier to partner notification. The stigma was reportedly further heightened by the fact that

society also links the conventional STIs with HIV and a person with an STI is thus viewed to have potentially contracted HIV as well. A case in point is the young male participant who upon realizing he had urethral discharge first went for an HIV test at a voluntary counseling and testing center (VCT) before proceeding to the clinic for STI treatment. Once he found out that he was HIV negative he went on to notify his partner about his negative HIV test result but did not tell her about the STI which he sought treatment for the following day. It is now well established that conventional STIs increase one's susceptibility to HIV (Bonnel *et. al.* 2000) and increasingly community members appear to be realizing this link – or at least the association, presumably because HIV is also a sexually transmitted infection. Participants also highlighted that the stigma associated with STIs is further shaped by culture and religion which do not encourage discussions around issues of sexual matters – which are generally regarded as taboo.

5.1.3 Fear of Losing the Relationship TERN CAPE

In a study conducted by Clark *et al.* (2007) fear of rejection by the partner and embarrassment was sited as one of the barriers to partner notification. This is also consistent with findings by Gorbach *et al.* (2000) were fear of rejection and abandonment was reported as a barrier to partner notification. Similarly in this study two participants who did not intend to notify their partner(s) chose to do so because they feared that notifying their partner about their STI would lead to the breakdown of their relationship.

5.1.4 Fear of Domestic Violence

Fear of domestic violence and domestic conflict or arguments - especially when a female partner notifies a male partner about the STI - have been identified as a barrier to partner notification by Wakasiaka *et al.* (2003). This seems similar to some study findings of partner reaction after HIV (itself an STI) disclosure for example when a women discloses her positive HIV status to her partner. In studies conducted in developing countries Medley *et al.* (2004) found that 3.5% to 14.6% of women reported a violent reaction after HIV disclosure. In this study one young female participant did not intend to notify because she feared she could possibly be beaten by her boyfriend.

In considering what implications these types of patient – related barriers have for a health service such as the one in the study site, it becomes clear that health workers need to be equipped with the necessary information and skills to openly discuss these types of fears with their patients and then develop partner notification strategies which realistically take into consideration the stigma and fears their patients associate with having an STIs. Bearing in mind the idea in the HBM that an individual is more likely to take a positive health- related behavioral step, such as notifying their partner of their STI, if they understand and believe that the benefits to adopting this behavioral action (such as avoiding recurrent STIs, infertility and the possibility of even getting HIV) outweigh the potential costs or barriers that prevent them from taking such action (such as the stigma associated with having an STI and the possible negative reaction of a partner).

5.2 Partner or Relationship Dynamics

There were a number of barriers to notification that were linked to sexual partners and relationships. These varied from the type and duration of the relationship, to the age of the STI patient and also included the physical or geographical distance between a partner and their difficulty in tracing a partner.

5.2.1 Economic Arrangements that characterize a Relationship

Within the Namibian context, as in other contexts, one encounters a type of relationship that is formed largely on the basis of an economic or financial arrangement - what is commonly referred to as a "sugar daddy" or "survival sex" type of relationship. In most instances this involves a young woman dating an older man for the sake of financial support. In this study one participant reported being in this type of relationship and was not willing to notify her "sugar daddy" of her STI for fear of being dropped and in the process loosing the financial support she was getting from him. Given the imbalance in power (both in terms of economics and gender) that characterize this type of relationship it might be valuable for health workers (including lay counselors) when realizing their client is in such a relationship, to try and spend more time in counseling their client about the possible ways that they could notify their partner - even in the context of such a complex relationship dynamic. Feasible strategies of how to manage such communication would need to be explored in some depth with an STI client that is in a vulnerable position like this.

5.2.2 Type and Length of Relationship

The findings of this study indicated that participants who were married or in a stable relationship for a relatively longer period reported more an intention to notify their partners than those who had a casual relationship or, as one young male participant and one key informant referred to as "a one night stand". This finding is also supported by Gorbach *et al.* (2000) study where the researchers found out that patients were more likely to notify there regular partner as opposed to their casual partner(s). This study is further supported by Steen *et al.* (1996) who concluded that index patients with regular partners were more likely to notify their partner(s) than those who had casual relationships. Njeru *et al.* (1995) also reported higher partner notification rates amongst married couples.

Another logistical barrier in relation to partner notification amongst patients with casual partners or relationships is the inability of the index patient to locate or make further contact with their casual partner(s). The inability to locate the partner as a barrier to partner notification was also reported by *Clark et al.* (2007). In this study, one of the key informants specifically highlighted this as a barrier to partner notification.

Given these practical difficulties the implications for the STI control program, and the health workers that deliver STI-related services, is possibly to re-enforce sexual risk reduction counseling among STI patients who have been involved in an informal or casual sexual partnership where it is unlikely that they are able to or intend to notify their casual partner of their STI. This re-enforcement of risk reduction would largely be to try and influence future behavioral change.

Within this study, those participants who had extra-marital affairs or had sex with others, beyond their primary partner, also did not intend to notify the primary partner. This was due to feelings of guilt and the STI being an obvious marker of unfaithfulness or betrayal towards their primary partner. This was mentioned by one male participant and highlighted by one of the KIs, with the latter pointing out that in her experience it was the men who had difficulties notifying their long term partners after being unfaithful. These findings are similar to research conducted by Winfield & Latif (1985) in two towns in Zimbabwe which found that men, especially if they were married, were reluctant to reveal names of contacts for fear of being judged as promiscuous.

In this regard it might also be prudent for health workers, in applying the principles of the health belief model, to try and inform and shape men's behavioral attitude towards partner notification by explaining the perceived benefits of notifying their partner e.g. preventing cervical cancers or preventing their partners from getting infertile. A number of studies have found that individual counseling of patients about *importance* of partner notification did in fact facilitate greater partner notification (Faxelid *et.al.* 1996; Alam *et al.* 2010).

5.2.3 Implications of Distance between Partners and Partner Notification

The impact of distance on the intention to notify was described in the Wakasiaka *et al.* (2003) study, where it was found that partners staying in different towns were less likely to notify each other than partners who were staying in the same town. Similarly, in this study, two male participants whose partners were living outside of Windhoek had no intention to notify them, although for different reasons: one older male participant could not notify his partner because she had left Windhoek for another town and he did not know how to contact her. Another

male participant (who had urethral discharge) said he was not going to notify his partner as he had not had sex with her *after* acquiring the STI from a "one night stand". His decision to not inform his partner about his STI was based on the fact that he felt he had not transmitted the infection to his partner given they had not been sexually active since he got an STI. The participant reasoning is supported by the current evidence on STIs where with a urethral discharge one only has to notify those contacts one has had sex within 60 days *after* contracting the STI (MoHSS, 2009). This raises the issue of how important it is for health workers to take a proper case history in order to ascertain the temporal sequence of events, for example the last time a couple had sexual intercourse and when the index patient got the STI.

5.2.4 Age as a Barrier to Partner Notification

In this study the two youngest participants (the 19 year old male and 22 year old female) had no intention of notifying their partners – although it is likely that their age was not the only factor in determining their decision not to notify their partner. Steen *et al.* (1996) found that older people were more likely to notify their partners than the younger age groups. It might thus be important for health workers, particularly with their younger clients, to consider their age as another potential barrier to notification – and find creative ways of addressing this in their counseling process.

5.3 Health Services Related Barriers to Partner Notification

The main health services related barriers to partner notification were namely: lack of sufficient counseling and health education, the current method of partner notification in use at the health center and the attitudes of health care providers towards the index patients.

5.3.1 Lack of Sufficient Counseling and Health Education

The Namibian STI guidelines recommend risk reduction and partner notification counseling and health education as essential to the prevention of STIs (MoHSS, 2009). From the findings of this study all participants reported only being asked to notify their partner(s) to come for treatment but the rationale and importance of this intervention was never communicated to them. In this study one key informant suggested that one of the factors hindering partner notification was the lack of information or materials (like partner notification slips to aid in notifying the partners). The issue of poor communication about the need for partner notification was also highlighted by Faxelid *et al.* (1994) in their study in Zambia.

Interestingly, all the three key informants talked about how they believed counseling and health education was an important facilitator of partner notification. One key informant even mentioned that they considered ignorance about the importance of partner notification to be a major barrier in the local context - a finding that Clark *et al.* (2007) also noted in their study in Peru. Ironically, it appeared that what the key informants (all of whom were health workers actively involved in STI management) were suggesting *should* be in place in terms of educational interventions – clearly was not experienced as being in place from the perspective of the participants.

Another related barrier, mentioned by one of the key informants, was health workers' lack of knowledge about STIs and the rationale of partner notification. If this is the case, it becomes difficult for the health worker to provide adequate information on the issue if they themselves were not well versed or knowledgeable about it. The same key informant also mentioned that the age difference between a health worker and the patient was a barrier in terms of giving

proper counseling and education. According to this key informant an older patient might not feel comfortable discussing sexual matters with a younger health worker. This suggestion was not found in other studies that the researcher reviewed. It is however something that relates to the context in which information is conveyed and would be important to consider when designing partner notification strategies and related educational interventions for the Namibian context.

5.3.2 Approaches to Partner Notification as Barriers to Notification

There were contrasting views expressed about the preferred partner notification approach between the study participants and the key informants. As mentioned before, four approaches were explained to both the participants and key informants, namely, patient referral, provider referral, contract referral and patient referral with medication to give to their partner(s) also called expedited patient delivered partner treatment. All these approaches are recommended by WHO and it is up to individual programs to adopt what best suits them (WHO, 2007).

Out of these four approaches most participants preferred the last approach whereby they would be given the same tablets (that would have been prescribed to them) and advised to give them to their partner(s) without them (the partner[s]) necessarily coming to the clinic. This was considered a better approach especially with difficult male partners who would not want the embarrassment of going to the clinic for an STI treatment.

Two participants (a male and a female) notified their partners by way of sending a short text message to them using their cell phones. This technology (text messaging) is used by some health facilities in developed countries to notify partner(s) if, for example, the index patient is not willing to do it themselves. As described in the literature (Alam, *et al.* 2010) this has

become one of the recommended methods of partner notification in developing countries given that in some countries cell phones have become widely available. Its use in a developing world context like Namibia is likely to be less appropriate.

In contrast, all the key informants preferred the patient referral system without medications (which is currently recommended by MoHSS). The reason given by the key informants for this was that this method was based on confidentiality of the patient presenting with the STIs. They felt that provider referral would breach this confidentiality. One key informant was not comfortable giving medications to the patient to deliver to the partner as they felt issues to do with dosages and allergy to medicines would not be properly addressed.

The stark difference between what the patients' suggested as a preferred method and what the key informants (health workers) felt was the preferred method has implications for future policy and practice so as to improve partner notification. Patient preferences for the notification of their sexual contacts should importantly be taken into consideration in the future by the Namibian STI/HIV control program.

5.3.3 The Attitude of Health Care Providers

For the most part, the participants reported being satisfied with the quality service they received from the health workers as well as the confidential manner in which the consultations were conducted. Most said they would recommend a friend to come to this particular health centre if they had a similar problem. Participants specifically suggested that health workers should discuss STI issues in a sensitive manner and should always be non-judgmental in their approach. Unfortunately in one instance the stigma commonly associated

with STIs was reinforced by a health worker (as reported by one of the female patients) when she was having a pap smear and the health worker gave an unwelcome remark about her vaginal discharge. It is essential that health workers be sensitive when dealing with STI patients so as to not further creates a stigmatizing environment and re-enforce the existing negative community view of STIs.

Another issue raised by one of the key informants (a counselor) was that she felt that STI patients would prefer to be counseled by a health worker of their same age or generation as this is likely to remove some of the embarrassment associated with talking about an STI.

Given the shortages in health personnel, having a patient see a health worker of a similar age to them or of the same gender might not be feasible, but it is something to consider where such possibilities exist.

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5.4 Conclusion

This discussion chapter has highlighted a number of factors that either serve as a barrier or as a support to partner notification. A conceptual model (the HBM) has been described as a possible model which health workers can use when designing educational and counseling programs that encourage positive behavior change so as to promote partner notification. The implications of these factors to the current STI control and prevention program in Namibia – and specifically in relation to the current partner notification strategy utilized in health services - have also been discussed and possible avenues for improvement highlighted.

CHAPTER 6: CONCLUSION and RECOMMENDATIONS

Introduction

This chapter summarizes the important findings of this study and key recommendations are outlined as well as further possible future research areas that will promote partner notification amongst STI patients attending Ushe health centre or similar health facilities in the Windhoek district.

6.1 Summary of Findings

In conclusion, and in line with the 3 study objectives, a summary of the study's key findings with regard to STI partner notification is presented below.



6.1.1 Patient Related Factors

Social stigma associated with STIs was perceived by the majority of the participants as one of the key barriers to partner notification. Participants suggested that the pervasive negative belief community members have about STIs - as being "unusual", and the discussion of subjects related to the genital area (such as STIs) being generally considered as taboo, makes it difficult for patients to notify their partners of their STI. The stigma associated with STIs is also further entrenched by local cultural and religious beliefs which do not condone open discussions about diseases of a sexual nature. In addition, the association of STIs with HIV makes it even much difficult for patients to notify their partner(s) because HIV is still considered as something equally negative.

6.1.2 Partner or Relationship Dynamics

The study found that most participants and key informants felt that the fear of a partner's reaction to the disclosure of having an STI was a particularly significant barrier to partner notification. The fear of such notification was linked to the fear of being abandoned or rejected by a partner; the fear of a subsequent domestic quarrel (with partners, for example, accusing each other of infidelity); and the fear of domestic violence – the latter being specifically reported by women as a barrier to notification.

In this study most participants who were married or in a long standing relationship reported being more likely to notify their partners than participants who were involved in more casual relationships. The older participants (i.e. those above 25 years), of which there were 4 reported being more willing to notify their partners compared to 2 younger participants. The study also found that one young female participant who was involved with a "sugar daddy" did not want to notify her (older) partner as she risked losing the financial and material support she obtained from him. It was also suggested, from one participant (in a long-term relationship) and one key informant that partners who had left for another distant town were less likely to be notified because the index patient would struggle to locate them.

6.1.3 Health Systems Barriers

The study found that lack of knowledge about the importance of partner notification was considered another key barrier to notification by some of the participants and all the three KIs. This lack of information appeared to be compounded by the fact that health workers were, according to all the participants, not explaining to their patients the rationale and motivation for them requesting that their clients notify their partner about their STI. It appeared that there

was a lack of patient risk reduction counseling and health education being implemented in the Ushe primary health care facility – specifically from the perspective of the STI patients interviewed. However, the health care workers (all 3 key informants) were aware about the need to explain the importance of health education to their patients.

The current method used by the Ushe health facility to notify partners was also identified as a barrier by some participants. It would appear, however, that whilst the health workers preferred the current approach (the patient-based referral mechanism) without supplying medication for the partner, the majority of the participants favored an alternative approach, namely, patient referral with medication-expedited patient delivered partner therapy.

The study also found that, based on the experience of one female participant, a health worker had spoken rudely to the participant when they were being examined – only serving to intensify the stigma associated with STIs, and potentially, further hinder partner notification.

6.2 **RECOMMENDATIONS**

Cognisant of the fact that partner notification is a key element in the prevention and control of STIs and based on the findings of this small, exploratory qualitative study the following recommendations are made:

The Namibian STI guidelines are clear on the need to counsel patients about the importance and benefits of partner notification. However it appears that this aspect of the policy has not been adequately translated into practice – or specifically in this study site. In the future a more client-oriented counseling approach should be adopted

- (including, amongst other things, being counseled by someone closer to one's own age where this is feasible).
- 2. In order to reduce the stigma and fear associated with STIs, which impacts negatively on partner notification, health workers should access health education materials such as pamphlets and posters from the country's Directorate of Special Programs (which has the mandate to produce these materials) and use them in the health centre to highlight to clients (and particularly those with an STI) the importance of notifying and encouraging their sexual partner(s) to seek treatment. These health education materials can also be used during individual counseling sessions. The importance of partner notification can also be integrated into the country's current HIV campaigns e.g. the couple counseling and testing campaigns.
- 3. Health workers should be made more aware (e.g. through relevant training programs and academic literature) of the various barriers that exist in relation to partner notification so that they can more proactively explore and problem solve in relation to these in their consultations with STI clients. Practically considering how their clients can reduce the many obstacles they face in notifying their partner(s) about the STI would be a critical aspect of an STI related consultation with a health worker or lay counselor. In particular, it would be advantageous if they took time to explain the advantages and benefits of partner notification, especially for the group of patients whom this study has identified as less likely to notify their partner(s) such as younger patients, patients in "sugar daddy" type relationships or a series of casual relationships.
- 4. Health workers should also be provided with regular in-service training and in particular the lay counselors given there are not medically trained, so that they are well

- versed about the benefits of partner notification and thus are able to improve the content of their health education and their risk reduction counseling skills.
- 5. It is recommended that health workers be reminded and supported to remain non-judgmental towards their STI patients at all times. This is not only good practice but might minimize the current level of stigma associated with having an STI and assist in reducing the web of interlocking barriers some of which relate to the health system itself and which likely impact on the extent of partner notification.
- 6. Finally, it is recommended that the Ushe health facility management, the Khomas region directorate (Special programs) and the Directorate of Special Programs at MoHSS (STI Unit) should meet together to consider the current approach adopted by the facility /district for partner notification, and in conjunction with the client's suggestions from this study, consider the feasibility of incorporating their preferred method i.e. patient delivered partner therapy into their future practice.
- 7. Lastly, in relation to further research, it is recommended that effectiveness of using the current partner notification approach (i.e. patient referral without medication for the partner) together with the patient's preferred method (i.e. expedited patient delivered partner therapy) i.e. a mixed approach on partner management be piloted in the Windhoek District and evaluated to see its impact as opposed to the current use of the patient referral system only.

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APPENDICES



APPENDIX A: PARTICIPANT INFORMATION SHEET FOR

INDEX PATIENTS

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Tel: 021- 959 2809, Fax: 021- 959 2872

Participant Information Sheet

February, 2010

UNIVERSITY of the WESTERN CAPE

Dear Participant

Thank you for your time and willingness to hear and read about the research I intend to do. What follows is an explanation of the nature of the research and an outline of your potential involvement in the project. This study will be done as part of the researcher's fulfillment of the master's degree program requirements with the University of the Western Cape. The researcher is completing a Masters in Public Health degree program. If there is anything you need clarity on, please feel free to ask me or my supervisor Ms. Nikki Schaay. At the end of this information sheet you will find my contact details as well as those of my supervisor.

TITLE OF THE RESEARCH

Barriers to Effective Partner Notification Amongst Patients with Sexually Transmitted Infections at a Health Center in Windhoek District, Namibia.

PURPOSE OF THE STUDY

The purpose of this study is to improve notification of partners of patients presenting with a sexually transmitted infection (STI) in outpatient care in Katutura, Windhoek district. This will ensure STI patients and their partner(s) receive comprehensive STI services as a means of reducing not only STIs transmission but also HIV transmission in Katutura, Windhoek. The study seeks to explore and understand the challenges that patients with STI face in trying to notify their sexual partners. The findings will be used to strengthen partner notification as well as to improve health workers' capacity to respond to key issues of patient reluctance to notify their sexual partner(s) at KHC in Windhoek which in turn if successfully implemented can be potentially applied to other districts.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT

The study will be based on individual interviews. Key health workers at the clinic will also be interviewed individually. Questions about your views on notifying your partner(s) and why you may wish or not wish to notify your partner(s) will guide the interview. There is no anticipated harm in participating in this study.

CONFIDENTIALITY

At all times, I will keep the source of the information confidential and refer to you or your words by pseudonym or invented name which I would like you to choose. I shall keep all records of your participation locked away at all times, and destroy them after the data has been collected.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Your participation in this study is entirely voluntary and should you wish to withdraw from the study at any time you may do so without giving reasons. Your withdrawal will not affect your future management at this health centre. The interview may touch on issues that you may not be comfortable to discuss. If there is anything that you would prefer not to discuss, please feel free to say so. I will not be offended and there will be no negative consequences if you would prefer not to answer a question. I would appreciate your guidance should I ask anything which you see as intrusive.

BENEFITS

You may not get any direct benefit from this study. However, your partner will be treated for free at this clinic if you wish to notify him/her. The study results may improve partner notification in Katutura and therefore reduce the number of STI cases as well as the number of HIV cases in the district. In return for your time you will get a small token of appreciation in the form of N\$ 50.

INFORMED CONSENT

Your signed consent is required for you to participate in this study. You may decide to participate or not. The consent form is attached to this participant information sheet.

UNIVERSITY of the

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CONTACT DETAILS

Dr. Shepherd Shonhiwa

Student number: 2826518

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My supervisor's details are as follows

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APPENDIX B: PARTICIPANT INFORMATION SHEET FOR KEY INFORMANTS





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UNIVERSITY of the

Participant Information Sheet

August, 2009

Dear Participant

Thank you for your time and willingness to hear and read about the research I intend to do. What follows is an explanation of the nature of the research and an outline of your potential involvement in the project. This study will be done as part of the researcher's fulfillment of the master's degree program requirements with the University of the Western Cape. The researcher is completing a Masters in Public Health degree program. If there is anything you need clarity on, please feel free to ask me or my supervisor Ms. Nikki Schaay. At the end of this information sheet you will find my contact details as well as those of my supervisor.

TITLE OF THE RESEARCH

To Explore the Barriers to Effective Partner Notification Amongst Patients Presenting with Sexually Transmitted Infections at a Health Centre in Windhoek District, Namibia.

PURPOSE OF THE STUDY

The purpose of this study is to improve notification of partners of patients presenting with a sexually transmitted infection (STI) in outpatient care in Katutura, Windhoek district. This will ensure STI patients and their partner(s) receive comprehensive STI services as a means of reducing not only STIs transmission but also HIV transmission in Katutura, Windhoek. The study seeks to explore and understand the challenges that patients with STI face in trying to notify their sexual partners. The findings will be used to strengthen partner notification as well as to improve health workers' capacity to respond to key issues of patient reluctance to notify their sexual partner(s) at KHC in Windhoek which in turn if successfully implemented can be potentially applied to other districts.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT

The study will be based on individual interviews with index patients. As part of the key health team at the clinic you will be asked to give your consent to take part in this study. Questions about what you perceive to be the barriers to partner notification and how these could be addressed will guide the interview. There is no anticipated harm in participating in this study.

CONFIDENTIALITY

At all times, I will keep the source of the information confidential and refer to you or your words by pseudonym or invented name which I would like you to choose. I shall keep all records of your participation locked away at all times, and destroy them after the data has been collected.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

Your participation in this study is entirely voluntary and should you wish to withdraw from the study at any time you may do so without giving reasons. Your withdrawal will not affect your future management at this health centre. The interview may touch on issues that you may not be comfortable to discuss. If there is anything that you would prefer not to discuss, please feel free to say so. I will not be offended and there will be no negative consequences if you would prefer not to answer a question. I would appreciate your guidance should I ask anything which you see as intrusive.

BENEFITS

You may not get any direct benefit from this study. However, the study results may improve your ability as a health worker to address key issues of patients' reluctance to notify partner(s) and therefore reduce the number of STI cases and in the long term the number of HIV cases in the district. In return for your time you will get a small token of appreciation in the form of N\$ 50.

INFORMED CONSENT

Your signed consent is required for you to participate in this study. You may decide to participate or not. The consent form is attached to this participant information sheet.

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APPENDIX C: INFORMED CONSENT FOR INDEX PATIENTS AND KEY





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RECORD OF INFO	ORMED CONSENT TO CONDUCT AN	INTERVIEW
Date:		
	UNIVERSITY of the	
	WESTERN CAPE	
Interviewer's name:Dr. S.	U. Shonhiwa	
UWC student no:2826518	3	
Tel: +264 81 203 1029	Fax: +264 61 310 216	

e-mail: ushe@iway.na OR shonhiwas@nacop.net

Institution: I-TECH Namibia, 25 Kalie Roodt Street, Windhoek, Namibia.

Interviewee's pseudonym:

Place at which the interview will be conducted: Katutura Health Center, Windhoek, Namibia.

Thank you for agreeing to allow me to interview you. What follows is an explanation of the purpose and process of this interview. You are asked to give your consent to me on tape, for me to conduct an interview with you and to use this data for my research project in partial fulfillment of the requirements of the MPH program with the School of Public Health, UWC.

1. Information about the interviewer.

I am Dr. Shepherd Ushe Shonhiwa, a student at the SOPH, University of the Western Cape. As part of my Masters in Public Health, I am doing an Operational Research project. I will be focusing on the issue of partner notification in STI programs and I would like your opinion, perceptions and feelings on this topic. I am accountable to Ms. Nichola Schaay who is my supervisor and is contactable on Cell +2784 2115 544 or c/o SOPH fax: +2721 959 2872 or by email at schaay@mweb.co.za

2. Purpose and contents of the interview

The purpose of this study is to improve notification of partners of patients presenting with a sexually transmitted infection (STI) in outpatient care in Katutura, Windhoek district. This will ensure STI patients and their partner(s) receive comprehensive STI services as a means of

reducing not only STIs transmission but also HIV transmission in Katutura, Windhoek. The study seeks to explore and understand the challenges that patients with STI face in trying to notify their sexual partners. The findings will be used to strengthen partner notification and therefore partner treatment at KHC in Windhoek and possibly other districts in Namibia.

3. The interview process

The interview will be carried out in a quiet place in one of the offices at Katutura Health Center. Questions about your views on notifying your partner(s) and why you may wish or not wish to notify your partner(s) will guide the interview. The interview will last for approximately 45minutes to one hour. After the interview you will be given N\$ 50 as a token of appreciation for your time.

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4. Anonymity of contributors.

At all times, I will keep the source of the information confidential and refer to you or your words by pseudonym or invented name which I would like you to choose. I shall keep all records of your participation locked away at all times, and destroy them after the data has been collected.

5. Things that may affect your willingness to participate

The interview may touch on issues that you may not be comfortable to discuss. If there is anything that you would prefer not to discuss, please feel free to say so. I will not be offended

and there will be no negative consequences if you would prefer not to answer a question. I would appreciate your guidance should I ask anything which you see as intrusive.

6. Agreement

6.1 Interviewee's agreement
I (Full name) do agree to take part
in the research interview.
Date:
Place:
Signature:
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6.2 Interviewers agreement
I shall keep the contents of the above research interview confidential in the sense that the
pseudonym noted above will be used in all documents which refer to the interview. The
contents will be used for the purposes referred above, but may be used for published or
unpublished research at a later stage without further consent. Any change from this agreement
will be renegotiated with you.
Signed:
Date:

APPENDIX D: INTERVIEW GUIDE FOR STI INDEX PATIENTS

Introduction

I would like to thank you for agreeing to take part in this study which was explained to you by the Sister. My name is Shepherd Shonhiwa I am a health worker working in the ministry of health. I am doing a Masters in Public Health with the University of Western Cape and we are required to do a research project. My research will focus on STIs in particular I want to understand the challenges that patients face and which hinders partner notification. In this interview I would like to get your opinions on the barriers to partner notification so that we can address them and hopefully improve partner notification. Feel free to air your views as this interview is confidential. By way of introduction I would like to get some personal information about you.

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Questions:

- As you have been told by the nurse we will not use your real name in this interview so as to protect your confidentiality. I will instead use you initials.
- *How old are you?*
- *Up to what level did you go in school? And your primary partner?*
- What type of job are you currently doing?
- How would you describe your relationship status at the moment? For example are you married, single i.e. not involved in a permanent relationship but having sexual partners; not married but living with partner (co-habiting); not married but have regular boy/girlfriend?
- How long have you been in this "type" of relationship?

• For those that are married, or involved with a boy/girlfriend or leaving with their partner: Does your partner (i.e. your wife/husband, boy/girlfriend or the partner you live with) stay with you here in Katutura or they stay out of town.

1. I would like to find out how you felt when you realized or when you were told by the nurse/doctor that you had an STI:

Prompts:

- Before you came to the clinic did you suspect you could be having an STI? (If yes why did you suspect?- if not what information do you have about STIs)
- Who motivated/encouraged you to come to the clinic? (self, partner, etc)
- Did you discuss this problem with anyone before you came to the clinic [if yes who and what did they say or suggest you do about the problem]?
- And how did you feel about their suggestions to your problem? If no can you tell me why you did not discuss the problem with anyone?

2. I would like you to tell me more about your opinion on notifying your partner(s) about your STI:

Prompts:

- If you are treated for an STI it is important to ask your partner to come for treatment as well, would you like to tell me if you are aware about this?
- Did you discuss your illness with your steady or other partner(s) before you came to the clinic?

•	How do you feel about now having to ask (notify) your partners to come		
	for STI treatment as well? What do you think his/her reaction would be?	(Probe a	
	yes or no		
	answer)		

- Some people find it difficult to notify their partners about an STI, in your case do you intend to notify your partner(s)?
- If not, what are the things that would make it hard for you to tell your partner?
- If yes, what makes it easy to notify the partner?
- (If more than two partners) are you going to notify all or specific partner(s) and why?
- Have you had an STI before?
- (If yes) did you inform your partner the last time you had an STI? And what made it easy

 to inform him/her?
- *If not what were the challenges?*
- How would you like PN to be done, provider vs. patient referral vs. partner delivered treatment? (These options will be explained to each interview)And then the interviewee will be asked why they prefer their chosen option.
- 3. I would now like to ask you a few questions about your relationship with your partner(s):

Prompts:

- Is your partner supportive of you when you are not feeling well e.g. did you come to the clinic together? Or if they did not come with you, did they know you were coming to the clinic as you were not feeling well?
- Are you able to talk freely about other sexual matters with your partner like using condoms or other forms of contraceptives?
- If yes what makes it easy in your relationship to do so
- If not-what makes it difficult for you to talk about sexual issues like condoms and contraceptives with your partner?
- 4. I would now like to ask you about your experience of visiting this clinic when you came this time to consult the health workers about your problem:

Prompts:

In the consultation with doctor/nurse were you informed about the need to notify your partner that you have an STI?

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- What information or materials did they give you, to help you notify your partner(s)?
- Have you been asked to come back for review and when is your review due?
- Have you sought treatment elsewhere for this problem before you came here?
- Is this your nearest clinic? If not why didn't you think of going to your nearest clinic?
- What things encouraged you to come to this clinic to discuss your problem?
- Would you recommend a friend or relative to come to this clinic for treatment of an STI? (Why or why not?)

APPENDIX E: INTERVIEW GUIDE FOR KEY INFORMANTS.

- STIs have been a major problem in Windhoek and anecdotal reports seem to point to poor partner notification as one of the causes. From your experience at this clinic what are the perceived challenges in partner notification
- In your opinion what makes it hard for patients to tell their partner(s)?
- What could be the particular barriers to partner notification be for people in (a)
 married relation (b) single with non-permanent partners, (c) not married but staying
 with a partner (d) casual partners "one night stand"
- What do you think would promote PN in Katutura? Why? And how should this be done? What can the clinic do to improve PN?
- Of the 3 approaches namely patient referral, provider referral or conditional referral (which is a combination of the first 2) which do you think would be the best for your patients? (And why?) [The 3 approaches would be explained to each KI].
- Some people have been talking about patient expedited patient delivered partner treatment (EPDPT) where the index patient is given similar medication to give to their partner(s). What is your opinion on this strategy?
- In what way do you believe the community influences or makes patients reluctant to notify their partner(s)?

Prompts:

- Strain and interference in relationships
- Stigma and discrimination

APPENDIX F: THE ROLE OF THE RESEARCHER

This appendix gives a brief disclosure of the researcher's belief, assumptions and a bias as far as barriers to STI partner notification is concerned. At the time the study was conducted the researcher was the STI technical advisor to Namibia Ministry of Health and Social Services and thus had a lot of interest in STI research. His role was to give technical advice on STI prevention and control, developing guidelines and curriculum as well as capacity building in the field of STI.

However, the researcher came from a different cultural background from the study participants and key informants: he is Zimbabwean by birth and has been working in the health services in Namibia for 5 years, and the study participants were all Namibians except one who was from the same country as the researcher. Notwithstanding this, the researcher's home country context is similar in some respects to Namibia as STIs are also associated with some form of stigma – which, similarly, is likely to have had a negative effect on the extent of STI partner notification.

The researcher is an advocate of a multi method approach to partner notification which includes using patient delivered partner treatment referral system, and modern communication approaches like cell phones or internet if it is available, affordable and feasible.