

**KNOWLEDGE, ATTITUDES, BELIEFS AND PRACTICES
CONCERNING HIV INFECTION AND AIDS AMONG PATIENTS
PRESENTING WITH SEXUALLY TRANSMITTED DISEASES AT A
SOWETO COMMUNITY HEALTH CENTRE.**

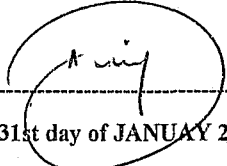
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**A research report submitted to the Faculty of Medicine, University of the
Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the
degree of Master of Medicine in the branch of Family Medicine.**

Johannesburg, 2000

DECLARATION:

I, Anben Pillay declare that this research report is my own work. It is being submitted as a part fulfilment for the degree of Masters in Family Medicine, in the Faculty of Medicine, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.


31st day of JANUARY 2000

In memory of my father
Thangavelu M. Pillay
1933 - 1998

SUMMARY:

Objectives. To investigate the knowledge, attitudes, beliefs and practices regarding HIV infection and AIDS among patients presenting with a sexually transmitted disease at the polyclinic department of the Chiawelo Community Health Centre in Soweto, Gauteng, South Africa.

Design. The data was collected using a structured interview administered by the researcher. Diagnosis of the sexually transmitted diseases (STDs) was based on the Syndromic Approach.

Subjects. The study sample consisted of 200 patients, over the age of eighteen years, presenting with a sexually transmitted disease at the polyclinic department. One hundred and ninety-seven patients, 152 men and 45 women, of the study sample consented to be interviewed, a response rate of 98%. The three patients that refused to partake in the study were all men.

Results. The median age of the men and women was 26 years and 24 years respectively. The median range of residence in Soweto was 19 years. Most of the respondents were single (68.5%) and unemployed (43.2%). At the beginning of the interview, most of the respondents, 53.3%(105), felt that their knowledge of HIV/AIDS was adequate. The median grade of education was 8. Education level of the respondents related significantly to their perceived knowledge of HIV/AIDS ($p < 0.05$). Urethral discharge was the most common presenting STD (43.1%). Only 17.8% (20.1% men and 15.6% women) of the respondents' main concern of their presenting illness was that of contracting the AIDS-virus. The majority of the respondents were aware of the common modes of transmission of STDs and HIV, yet only 4.1% of the respondents used condoms regularly with

multiple sexual partners. The most significant reason cited for not using condoms was that it made sex less enjoyable (40.1%). Moreover 65.4% of the respondents had multiple sexual partners. Majority of the men, 80.3%(122) had multiple sexual partners, previous episodes of STDs (67.8%%) and had an extremely low level of condom usage (1.7%). Although most of the women, 84.5%(38) had monogamous relationships with very low condom usage (11.2%), they still presented with STDs, indicating that they were at a high risk of contracting the AIDS-virus. The most influential source of information regarding HIV/AIDS proved to be the news media (television, radio, newspaper, and pamphlets/advertisement). Respondents had some negative attitudes to people living with HIV/AIDS, such as not befriending or accepting them as part of society. Of the 57.4% of the respondents who received treatment for a previous STD at the polyclinic, 33.6% did not receive counselling on HIV/AIDS and the use of condoms. Forty percent (18) of the women and 37.5%(57) of the men considered themselves at risk of HIV and were willing to be tested for the AIDS-virus. Significant differences existed between frequency of condom usage and multiple sexual partners ($p < 0.05$), and between multiple partners and previous history of treatment for a sexually transmitted disease ($p < 0.01$). Being male, unemployed, between the age of 21 – 30 years, with multiple sex partners and having had a previous STDs, related to a significant risk of contracting HIV infection. More information about HIV/AIDS was requested by 98.5%(194) of the respondents.

Conclusions. The respondents' factual knowledge, as assessed by most criteria regarding HIV infection and AIDS was relatively high, their use of condoms was low, their perceived level of risk of HIV infection was very low and therefore they did not feel the need to change their behaviour.

Recommendations. Future interventions regarding the prevention of HIV infection need to move beyond providing information and to focus more on producing behavioural change in communities

and to facilitate the target populations to achieve such changes. The integration of the Health Belief Model and use of patients' reason for encounter in these prevention programmes may prove extremely useful in our endeavour to curb the spread of HIV-infection.

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NOMENCLATURE:

Acquired Immunodeficiency Syndrome (AIDS)

Is a secondary immunodeficiency syndrome resulting from HIV infection and characterised by opportunistic infections, malignancies, neurological dysfunction and a variety of other syndromes.

Attitudes

The feelings or the state of mind of the respondents with regard to HIV/AIDS.

Beliefs

Respondents have faith in beliefs, whether they are true or not. Beliefs about personal disease susceptibility, the value of a preventative act, and the general importance of staying healthy are critical determinants of behavioural patterns.

Health Belief Model (HBM)

A model developed by Rosenstock¹ in 1974, which identified certain variables believed to influence the taking of a preventive action.

Human Immunodeficiency Virus (HIV)

Infection caused by one of several retroviruses that become incorporated into host cell DNA and result in a wide range of clinical presentations varying from asymptomatic carrier status to severely debilitating and fatal disorders.

Knowledge

Factual knowledge possessed by respondents about sexually transmitted diseases relating to its transmission, prevention and association with HIV/AIDS.

Illness

Illness refers to how people react to signs and symptoms.

Reason for encounter² (RFE)

The recordings that provide a greater insight into why the respondents consult their primary health care provider and how they present their problems.

Sexual behaviour

Sexual behaviour refers to those activities people undertake to avoid sexually transmitted diseases.

Sexually transmitted disease (STD)

A sexually transmitted disease encompasses not only the five venereal diseases (syphilis, gonorrhoea, chancroid, lymphogranuloma venereum, and granuloma inguinale) but also a number of other diseases, which might be considered the "new generation" of sexually transmitted diseases³. The most recently recognised STD is the acquired immunodeficiency syndrome, caused by the AIDS retrovirus.

Syndromic approach

STD syndromes are a way to group together sexually transmitted diseases that cause similar signs and symptoms⁴. These syndromes form the basis of diagnosis and treatment.

1 INTRODUCTION

The 1998 report of the UNAIDS Joint Nation Programme⁵ on HIV/AIDS states that globally there are a total of 33.4 million people, 32.2 million adults and 1.2 million children below the age of 15 years, living with HIV-infection or AIDS. Women make up 13.8 million of the adult population. Since the beginning of the epidemic a total of 13.9 million people have died, 10.7 million adults and 3.2 million being children below the age of 15 years. In 1998 alone, 5.8 million people have become infected with AIDS, 70% of these people are from Sub-Saharan Africa.

In South Africa the HIV/AIDS epidemic is progressing rapidly, with over 3.2 million people infected by 1998⁶. It was estimated that at the end of 1998, 22.8% of women who attended the antenatal clinics of the public health facilities were infected with HIV, 33% up from the previous year. It has also been estimated that 1500 people are being infected daily, which is equivalent to more than 550 000 new infections a year. Statistical trends also indicate that within three years almost 250 000 South Africans will die of AIDS each year, and this figure is estimated to be 500 000 by the year 2008. This could effectively leave 600 000 children orphaned.

In excess of 70% of HIV infections are sexually transmitted worldwide, both heterosexually and homosexually⁷, but it is the heterosexual transmission that is the single greatest factor in the spread of the disease. Persons characterised by a high prevalence of sexually transmitted diseases increase the susceptibility to being infected by HIV, both

because the presence of other STDs increases the probability of transmission of HIV per contact, and because the presence of an STD may suggest a relatively high number of sexual partners⁸.

In South Africa the majority of HIV infections, like elsewhere on the subcontinent follow the pattern-2 of HIV-transmission, that is, HIV infection that is acquired by heterosexual contact and these rates of infection are highest among sexually transmitted (STD) clinic attendees⁹. Because HIV is largely sexually transmitted it becomes a significant health problem in situations where there is a high level of sexually transmitted diseases. Sexually transmitted diseases are the among the five most common health problems for which people seek treatment⁹. Because of the large number of patients treated for STDs in South Africa, this high-risk group is likely to contribute significantly to the HIV/AIDS epidemic. Control of sexually transmitted diseases is therefore important in limiting the spread of HIV.

To minimise the impact of the HIV epidemic in South Africa, it has been recognised that sexually transmitted diseases (STDs) are one of the most readily modifiable risk factors for the spread of HIV-infection¹⁰. Both bacterial and viral STDs have been implicated as co-factors in sexual transmission of HIV. South Africa has one of the highest rates of sexually transmitted diseases in the world, with an estimated 5 million¹⁰ infected with at least one sexually transmitted disease every year.

The HIV epidemic cannot be controlled without a full understanding of STDs and a commitment to control the current high rates of these diseases. STD clinics services provide an important access point and offer opportunities for introducing and reinforcing appropriate health education and counselling on the adoption of risk reducing measures such as condom usage and reducing the number of sexual partners⁹. The landmark research in Tanzania also pointed to the same conclusion, that improved management of persons with STDs and prompt health seeking behaviour for STDs nearly halved the number of new HIV infections¹¹.

It is essential that an STD prevention programmes include STD prevention and awareness, accessible user-friendly services, simple and effective way to treat STDs and prevent further episodes, ways to decrease carriers by tracing and managing contacts, and ways of detecting symptomatic and asymptomatic carriers¹⁰. Moreover these programmes should also take into account other co-factors other than knowledge and attitudes to bring about safer sexual practices. These co-factors include cultural constraints on women which make them particularly vulnerable in negotiating sexual encounters, and socio-economic factors such as poverty, migrant labour, single-sex hostels and commercial sex workers which contribute to creating a high risk situation for contracting HIV/AIDS, and low sexual self-concept which make people more likely to indulge in unsafe sexual behaviour¹².

The burden of sexually transmitted diseases in this country is enormous, and as in most developing countries the Department of Health has adopted the Syndromic Approach Management⁴ as the only feasible way to control sexually transmitted diseases. This

syndromic approach treats sexually transmitted diseases as syndromes of curable sexually transmitted diseases, which are grouped together according to similar signs and symptoms. It is comprehensive in that it does not only include correct drug treatment but also condom provision, identification and treatment of sexual partners, and counselling to promote risk reduction. The syndromic approach management has however two major limitations⁴ in that asymptomatic patients will not present and there are no existing feasible screening strategies to identify asymptomatic patients. This may result in partially ineffective treatment, which could be a factor, associated with the high prevalence of STDs in South Africa. Therefore the only option besides a form of mass treatment to reduce STD prevalence is a high quality comprehensive syndromic approach combined with mass media campaigns to raise the awareness about sexually transmitted diseases and its inter-relationship with HIV infection, and to promote positive health seeking behaviour.

The current situation in South Africa, like other developing countries is such that social and cultural factors are crucial in determining beliefs, attitudes and behaviour, especially in as personal a sphere as sexual behaviour¹³. What is less recognised is that beliefs and attitudes can also affect health seeking behaviour and attitudes to diseases¹². Many studies are now being conducted on knowledge, attitudes and practices regarding sexual behaviour and the effectiveness of educational programs. Several studies in South Africa have found that despite high levels of knowledge about HIV/AIDS, mineworkers¹⁴, street-children¹⁵, commercial sex workers¹⁶ and university students¹⁷ still indulge in a range of high-risk behaviours. A patient presenting with a STD is a person at risk for HIV infection

and thus offers unique opportunity for education, counselling and condom promotion, which should not be missed. It is therefore essential to monitor this risk group.

Eradication of sexually transmitted diseases could be achieved by the development and mass application of ideal drugs (not currently available) or effective vaccines (not generally available for the organisms involved in sexually transmitted diseases)¹⁸. Conversely, sexual transmission of disease could be eliminated if persons adopted life-long sexual exclusivity between couples. However, sexual exclusivity seems to be decreasing in most countries rather than increasing¹⁹. The present situation has resulted not due to a lack of knowledge or a shortage of resources but because there been (i) inadequate use of well-established techniques, such as the “health belief model” when formulating prevention programmes for STDs²⁰, and (ii) incorrect use of social and educational approaches²¹. Dissemination of information is not enough. The principle aim of an educational effort will need to encourage behaviour that will ultimately reduce the impact of sexually transmitted diseases in the community.

Soweto, a predominantly black township in Guateng, South Africa is experiencing part of this devastating AIDS epidemic²². The profile of STDs in this urban area of South Africa is very similar to that of other African and developing countries. Furthermore the social environment of rapid urbanisation, poverty, poor housing, informal settlements, and the low status of women form the ideal setting for the spread of STDs and the risk of HIV transmission. Other factors such as the apartheid legacy of the migrant labour system and high rate of unemployment compounds this problem¹⁴.

The very high rates of STD prevalence in Soweto will certainly play a major role in the spread of HIV infection²³. The identification and treatment of these STDs in the community is the key factor in slowing the early stage of the epidemic. Education and most importantly changes in sexual behaviour is urgently required.

The goal of this study is to investigate the knowledge, beliefs and attitudes concerning HIV infection and AIDS of patients presenting with a sexually transmitted disease at a Soweto community health centre, and how these impacted on sexual behaviour. It is hoped that the results obtained from this study will contribute to existing STD prevention strategies to limit the spread of HIV infection. The control of sexually transmitted diseases is thus an urgent priority in this country.

2 LITERATURE REVIEW

2.1 Interaction Between Sexually Transmitted Diseases and HIV infection

It is clear that in South Africa and worldwide particularly in developing countries the predominant mode of transmission of HIV is by heterosexual activity⁸. Furthermore, over the past decade, there has been increasing evidence that HIV transmission and acquisition can be facilitated by other sexually transmitted infections²⁴. Most epidemiological studies worldwide have indicated that there is a two to six fold increase in the risk of acquiring HIV infection when infected with concurrent sexually transmitted diseases²⁵. Furthermore these studies have shown risk is generally higher with genital ulcer disease than with non-ulcerative sexually transmitted diseases, although the latter still cause a significant increase in relative risk in studies that have been carefully controlled for other factors, such as sexual behaviour and condom use⁹.

The mechanisms explaining increased transmission of HIV is not fully understood, but there are at least two biological plausible explanations. Firstly, HIV-positive men and women may have increased infectiousness due to an increased shedding of HIV from inflammatory and exudative sexually transmitted disease lesions. Secondly, one might expect an increased susceptibility of HIV- negative men and women to HIV because of changes in the epithelium barriers of HIV target cells, such as T-lymphocytes and

macrophages, in conditions such as ulceration, cervical erosion and increased cervical friability²⁶.

Several studies have been initiated in different countries to see whether increased facilities for the diagnosis and treatment of sexually transmitted infections decreased the incidence of HIV infection. The first study reported from the Mwanza region, Tanzania, provided strong support for this hypothesis. The annual incidence of HIV was almost halved in this population from 1.9% to 1.1% per year²⁷. This 42% reduction was achieved with no appreciable change in condom usage, which remained extremely low. However, other studies have shown that condom usage is effective in preventing HIV transmission. For example, sexually transmitted disease, including HIV, was reduced by condom usage in a prostitution population in Zaire²⁸. Another study in Europe showed that HIV transmission could be prevented by consistent use of condoms in heterosexual couples of which one partner was HIV positive²⁹

2.2 Syndromic Management Of Sexually Transmitted Diseases

The World Health Organisation (WHO) has recommended the syndromic management as a public health approach for the control of STDs³⁰. The Department of Health in Gauteng, South Africa have adopted this approach. By definition the syndromic approach is the identification of the signs and symptoms of a clinical syndrome and treatment for the most likely organism that cause the syndrome. These clinical syndromes include, genital ulcer

disease and swollen testis, urethral discharge, vaginal discharge and lower abdominal pain. Also included are protocols for treatment for neonatal conjunctivitis, neonates with or at risk of congenital syphilis, herpes/blisters, lymphogranuloma venereum (LGV), warts, pubic lice, molluscum contagiosum and latent syphilis (see appendix B). It has been shown that by treating persons with STDs in this way was more efficient and cost effective³¹.

The key principles behind the strategy are (i) it does not provide for an accurate etiological diagnosis for patients presenting with STDs, and (ii) many patients with an STD have multiple infections. Therefore based on the prevalence of etiological agents and drug susceptibility patterns for that region, health departments in most developing countries recommend particular combinations of drugs for each STD syndrome. Although widely recommended and used, there is surprisingly little evidence that syndromic treatment actually cures most patients when used under programmatic conditions⁴.

Drug therapy is but one aspect of the syndromic management. Other important components of this approach include promoting adherence to therapy, promoting condom use, provision of counselling to patients, and promoting partner notification and treatment³⁰. While the syndromic approach eliminates the need for laboratory testing, it does have the disadvantage of excluding asymptomatic infections, which do not produce any visible signs e.g., syphilis, and there are no feasible screening strategies to identify asymptomatic patients in developing countries⁴.

2.3 Findings of Knowledge, Attitudes, Beliefs and Practices (KABP) studies among persons with sexually transmitted diseases regarding HIV/AIDS and condom usage in South Africa

Although there is a high level of HIV/AIDS awareness in South Africa, the high rate of new infections suggests that this awareness has not resulted in behavioural change. Information about knowledge, attitudes, beliefs, and behaviour, among STD-patients regarding HIV/AIDS is therefore essential when designing effective strategies and messages to prevent further rise in the rate of HIV infection.

Review of studies in South Africa indicates that stigmatisation, negative attitudes, cultural taboos, limited knowledge and poor recognition of symptoms of sexually transmitted diseases affect health-seeking behaviour for sexually transmitted diseases. Moreover, those with sexually transmitted diseases continue to engage in high-risk behaviour with multiple partners and inconsistent use of condoms³². An assessment of AIDS knowledge, awareness, and practice among STD clinic attendees³³ in the Cape Peninsula revealed that there existed inadequate understanding of the difference between HIV and AIDS, and the lack of knowledge regarding both the transmission and cure for HIV/AIDS. Risk-taking behaviour was common in this study, but perceptions of risk were low, as was the intention to change behaviour.

The AIDSCAP³⁴ study carried out in a mining community among the general population, STD-patients, commercial sex workers, sex workers' clients, healthcare providers and

tavern or shebeen workers, found that although respondents knew the concept of sexually transmitted disease, many still perceived STDs as having a social cause, such as punishment for violating social law or taboo, rather than a biomedical cause. Some also believed that traditional medicine protects against STDs and there were many misconceptions about the cause and consequence of STDs. The study also showed that there was very little information about knowledge of the links between STDs and HIV transmission, and the importance of STD treatment to reduce HIV risk. This study also highlighted key issues related to STDs among women, such as low levels of preventative behaviour and stigmatisation by using services providing STD treatment. Commercial sex workers were shown also to under-utilise these services in part because prostitution is illegal and the fear of losing clients if it became known they had a STD. Respondents in this study considered STD as serious at first but changed their minds if symptoms persisted. Self treatment followed by visits to traditional healers were the initial response to symptoms.

Similar results to the AIDSCAP study were also found among STD-patients in the Western Cape³⁵. Respondents in this study did not understand the concept of latent or asymptomatic infection and some believed that the prescribed STD medication they received prevented them from contracting HIV. Also some respondents who tested negative for a syphilis serology test misconstrued it for being also HIV-negative.

A study among STD patients in Cape Town and rural area of Mapumalanga showed that STD health-seeking behaviour was determined by beliefs about the causes of STDs, the recognition of STDs, and access to STD services³⁶. Respondents in this study believed

that ignoring sexual taboos or sorcery caused sexually transmitted diseases and they would therefore seek help from traditional healers. Some respondents believed that using contraceptives, including condoms were responsible for STDs and some men and women blamed other women for transmission of sexually transmitted diseases.

Recent statistics for the national help-line³⁷ for HIV/AIDS in South Africa showed that of the 30 000 calls received between January and August 1998, the most common issues callers wanted to know about were condoms, transmission, symptoms, testing, treatment and care. This implies that uncertainty of specific aspects of HIV/AIDS existed.

McCoy³⁸ and Wilkinson³⁹ respectively found that women waited longer before seeking treatment because of the stigma associated with STDs and the negative attitudes of health workers towards female patients with a sexually transmitted disease.

A study among mineworkers⁴⁰ with STDs found that despite availability of treatment facilities most preferred to consult traditional healers as the first line of treatment because of negative attitudes of healthcare providers, stigmatisation and that certain illnesses are best treated by traditional medication.

In a study in the private sector⁴¹ of South Africa concerns about confidentiality, stigma, fear about HIV-testing and subsequent loss of employment were the reasons found for low utilisation of a workplace clinic. The study showed that anonymity, confidentiality and the

quality of care among private practitioners, including traditional healers were the main reasons for higher utilisation of private services than public services.

Research in South Africa suggests that partner notification rates are low thus giving rise to higher rates of transmission of both STDs and HIV⁴². Women in particular experienced fear and anxiety about discussing sexually transmitted diseases with their partners due to lack of power.

A study of partner communication⁴³ about sexually transmitted diseases and HIV infection found that while both men and women expressed anxiety about telling their partners about their STD, men indicated that they felt embarrassed while women were more fearful.

A study of adolescent sexually and reproductive health by the Health Systems Development Unit⁴⁴ found that those infected with a sexually transmitted disease failed to seek treatment because of limited or accurate knowledge and negative perceptions regarding STDs. Also problems in accessing reproductive health services contributed to them failing to seek treatment.

The low rate of condom use in South Africa also contributes to high levels of sexually transmitted diseases and HIV infection. A study in Kwazulu Natal found that regular condom use was reported by only 3% to 7% of individuals treated for a STD⁴⁵. Another study in Welkom showed that three-quarters of women commercial sex workers visiting a STD project clinic never used condoms and less than 1% reported frequent use⁴⁶.

One important barrier to condom use is negative male attitudes towards condoms, including concerns about reduction in sexual pleasure³³. Other barriers identified by qualitative research by Harden⁴⁷, includes the desire to have children, traditional beliefs about the link between sperm and ancestors, the issue of trust, low perception of personal risk and traditional remedies protected against HIV infection.

Meyer-Weitz's³⁶ found that people perceive condoms to be unnatural, results in a "waste of sperms", results in death if the condom gets lost in the woman's womb, and that condom use is strongly associated with promiscuity and sexually transmitted diseases.

Evidence from research done locally suggest that condom use by adolescents and young adults, is not high⁴⁸. This study among teenagers seeking condoms at family planning services found that the reasons for adolescents not making use of condoms were problems with accessibility, negative attitudes of health workers, lack of privacy, and inadequate information of condom use. The study also found that condom use signified lack of trust in sexual partners, associated with sexually transmitted diseases, and the desire to prove fertility. One of the more recent studies in the Northern Province of South Africa found that one of the main reasons for not using condoms was the belief that it reduces sexual pleasure³³.

A study among 110 men in homesteads in a rural area of Kwazulu Natal showed that although HIV prevalence was between 5% and 10 %, 40% of the sexually active men had more than one concurrent sexual partner and only 14% had ever used a condom⁴⁹.

With regards to the female condom, Harden⁴⁷, found that both men and women had limited understanding of both its use and the female anatomy.

Most educational strategies and interventions in South Africa results in higher awareness of HIV, STDs and the protective effect of condoms, however most of these studies indicate that actual condom use is still low and the barriers to condom use remain⁴⁷.

2.4 The Health Belief Model

Both HIV/AIDS and STD prevention programmes and educational interventions for specific target groups need to be integrated and should aim not only to transmit information about HIV/AIDS and STDs but to change the culture and psycho-social context in which people make behavioural sexual decisions. The most widely used and researched scheme in family medicine to provide a theoretical understanding about how people come to their choices that influence health is “the health belief model”. This model state that an action a person takes for the purpose of preventing disease is largely determined by:

- (a). How susceptible he/she feel to a disorder.
- (b). How seriously the disorder is perceived.
- (c). A weighing-up of the advantages of prevention versus the cost
(human and financial) of the proposed change or choice.
- (d). The general health motivation of the individual.
- (e). The cues/trigger factors which tip the balance of the decision one-way or the other.

The barriers of behavioural change may include poverty, weakness, disability, fear, disinterest, religion, negativism, jealousy, greed and education.

Family physicians need to be aware of all these behavioural factors and barriers that influence whether an intended action is translated into actual behaviour. Thus the control of sexually transmitted diseases poses particular problems for health education. Disapproval by the culture of sexual behaviour, which leads to disease acquisition, may prove a barrier to effective disease control by stigmatising infective individuals⁵⁰.

2.5 Reason for encounter

In 1987 the Classification Committee of the World Organisation of National Colleges, Academia and Associations of General Practitioners/Family Physicians (WONCA) developed the International Classification of Primary Care (ICPC)² to classify reasons why patients make contact with primary health care services. This classification encompasses three important elements of the health care encounter; reasons for encounter (RFE), diagnosis or problems, and the process of care.

The ICPC defines the reasons for encounter as an agreed statement of the reason(s) why a patient enters the health care system, representing the demand for care by that person. They may be symptoms or complaints (urethral discharge or fear of AIDS), known diseases (genital ulcer or gonorrhoea), requests for preventive or diagnostic services (contraception or blood test), a request for treatment (prescription), to get test results, or

administrative (a medical certificate). In this respect, reason for encounter is patient orientated rather than disease- or provider-orientated. These reasons are usually to one or more underlying problems which the doctor formulates at the end of the encounter as the condition that have been treated, which may or may not be the same as the reasons for the encounter.

The reason for encounter has been established to be a practical source of patient information, also useful for research and education.

In South Africa, because there is such a diversity of culture within communities, the control of sexually transmitted diseases is very much dependent on health workers developing a biopsychosocial⁵¹ approach to treating patients presenting with STDs.

Each episodic encounter between the healthcare provider and the person presenting with a sexually transmitted disease is influenced not only by the presenting biological disease but also by cultural, social structure and psychological factors. These factors also influence the personal reactions involving target or priority groups interacting with other persons, and between infected patients and their sexual partners.

2.6 RATIONALE, AIMS AND OBJECTIVES FOR RESEARCH

2.6.1 RATIONALE FOR RESEARCH

The control of the STD epidemic is one of the major challenges facing South Africa at the present time. Although there is widespread perception that the level of awareness of HIV/AIDS is high in South Africa, the high rate of new infections suggests that this awareness has not resulted in sexual behavioural change. To prevent HIV from spreading, people have to fundamentally change their behaviours, including their most intimate ones. A patient with an STD is a person at risk for HIV infection, and it is therefore essential to monitor this risk group. For future prevention campaigns to be more successful it would need to have sound information about knowledge, attitudes, beliefs and sexual practices to identify those at risk and their reasons for risk-taking behaviour.

It is hoped that the data and results obtained from the study would aid in the formulation of STD/AIDS prevention programmes to endeavour to reduce the rate of transmission of HIV.

2.6.2 Aims

The aim of the study was to examine the knowledge, attitudes, beliefs and practices concerning HIV infection and AIDS among the patients presenting with sexually transmitted diseases at the Chiawelo Community Health Centre in Soweto.

2.6.3 Objectives

The objectives were:

- i. To define the socio-demographic profile of the patients presenting with a STD at the clinic.
- ii. To determine the reason for encounter (RFE)
- iii. To determine knowledge, perceptions and the most important information source regarding HIV infection and AIDS.
- iv. To determine knowledge regarding condom usage.
- v. To determine the extent to which those at risk of HIV infection modify their behaviour.

3 MATERIALS AND METHODS

3.1 *Site of study*

The study was conducted at the Chiawelo Community Health Centre, which is one of the largest of the eleven Soweto Community Health Centres run by the Gauteng Health Department. Permission to conduct the study was granted by the Director of the Soweto Community Health Centres (Appendix A).

It is estimated that the current population of Soweto is around 3.1 million and the estimated catchment area and population served by the centre is a 1.5 kilometre radius and 80 000 people respectively⁵². The centre serves the communities of Chiawelo, Phiri, Mapetla, Protea North, Protea Glen and Protea South areas. The Chiawelo Community Health Centre provides a comprehensive health care service, including maternity and curative care. It also administers a series of vertical programmes, namely, a large family planning service, a community health education infrastructure, and community psychiatric and district nursing services.

A review of the centre's patient registers⁵³ for the period June 1995 to June 1996 indicated that over 9% of patients treated at the polyclinic complained of a sexually transmitted disease, (7714 patients out of a total of 85 395 seen over the 13-month

period). This makes sexually transmitted diseases one of the most common groups of conditions treated at the clinic.

3.2 Study design and sampling

A cross sectional descriptive study was conducted using a structured interview. The study population consisted of all patients over the age of 18 years presenting with a sexually transmitted disease at the polyclinic department.

Other health care workers of the polyclinic department referred patients directly on diagnosis of a sexually transmitted disease to the researcher. The diagnosis was confirmed and managed in accordance with the syndromic approach (see section 3.3). A systematic sample was used, whereby after a random start, every 3rd patient confirmed of having a sexually transmitted disease was selected and interviewed after obtaining informed consent. The study sample consisted of 200 patients of both men and women. This sample size was determined by a 5% margin of error with 95% confidence intervals. All patients included in the study were reassured that their referral by the health care workers was for research purposes only and not as a consequence of the nature or severity of their illness.

All the patients referred to the researcher on diagnosis of a sexually transmitted disease, including those that were not included in the study sample were treated and information pamphlets together with condoms was made available.

A pilot study was undertaken at the same community health centre. A total of 20 patients consented and were interviewed in the pilot study to check the process of patient referral to the researcher, as well as the feasibility and suitability of the questionnaire. These patients were screened by the other health care workers before referral to the researcher in the final study and were excluded from being selected. As all interviews were anonymous it was not possible to determine whether any patient in the pilot study was allowed to slip through into the final study sample on a subsequent visit.

3.3 *Diagnostic criteria used for sexually transmitted disease*

The Syndromic Approach⁵⁴ to the management of STDs was used to determine the diagnosis of the respondents. The Department of Health in Gauteng, South Africa has adopted this approach (see appendix B), which has been recommended by the World Health Organisation (WHO). By definition the syndromic approach is the identification of the signs and symptoms of a clinical syndrome and treatment for the most likely organisms that cause the syndrome. Those respondents with ulcers suggestive of lymphogranuloma venereum (LGV) were grouped under the syndrome of genital ulcer disease.

3.4 Administration of the questionnaire

A structured interview was administered to each patient in the study sample by the researcher. An interpreter was used when language barriers were encountered.

Informed verbal consent was obtained from each of the interviewees (see appendix C).

They were informed of the nature of the research being carried out, reassured that their names would not be recorded and that all information received would remain confidential.

They were advised of their right to refuse to answer any question or discontinue participation at any stage of the interview, for whatever reason. They were also reassured that their confidentiality was protected, and that their future treatment at the clinic will in no ways be jeopardised if they refused to partake in the study.

The study commenced on the 14th January 1998, and all the interviews were completed by the 12th February 1998.

3.5 The questionnaire

The structured interview consisting of twenty-six questions was administered by using a standardised questionnaire (see appendix C) that was anonymous. Most of the questions were closed-ended and included socio-demographic details such as age, marital status, education and employment status. The questionnaire also included information on the

patients' place of abode, period of stay at current residence, and diagnosis of their STD syndrome.

The questionnaire also collected information relating to the following;

i. Reason For Encounter (RFE)

For the interest of this study, only the respondents' perceived reasons for encounter was recorded to gain greater insight into their presenting illnesses, that is, the sexually transmitted disease. This included recording the particular concerns and beliefs held by the patient, which precipitated the encounter with the health service. Each interviewee's health-seeking behaviour was explored by means of a patient-centered approach⁵¹. A patient-centered approach is a consultative process that has been proved to go beyond the conventional biomedical approach in providing a better understanding of disease and illness experience. It provides for better patient care and improved doctor satisfaction by integrating personal and social dimensions of illness into the consultation process. By this approach the respondents' fears, feelings, views, expectations, and effect on functioning regarding their illness were explored. The reason for encounter was recorded by establishing what their major concerns were regarding their presenting illness.

ii. Knowledge of HIV/AIDS

This section of the questionnaire mainly tested the patients' factual information regarding the transmission, prevention, people at risk and manifestations of HIV infection and AIDS.

iii. Attitudes and Belief of HIV/AIDS

Respondents' feelings and ideas towards people living with AIDS, condom usage, their perceived risk of infection, and therapy of HIV/AIDS, was explored in this section of the questionnaire.

iv. Practices

Questions regarding the patients' sexual practices and behaviour focused on the current number of active sexual partners, their use of condoms, and previous infection with STDs or counselling with regard to HIV infection and AIDS.

3.6 Ethical Approval and Other Considerations

Both the University of Witwatersrand Postgraduate Committee (Appendix D), as well as the University's Committee for research on Human Subjects approved the study (appendix E).

The cost of the research was funded entirely by the researcher.

3.7 Analysis

The data was analysed using Epi info 6.0, a word processing, database and statistical package for public health.

4 RESULTS

4.1 Response rate

One hundred and ninety-seven of the 200 respondents that met the inclusion criteria consented to participate in the study, a response rate of 98%. The three patients that refused to take part in the study were all men. No difficulties were experienced in administration of the questionnaire. The average length of the interview was 20 minutes.

4.2 Demographic information

4.2.1 Age and gender distribution

The sample consisted of 77.2%(152) men and 22.8%(45) women respectively. Table 4.1 depicts the age and gender distribution of the respondents. The age group between 21 and 30 years consisted of the highest proportion for both genders, that is, 70.4%(107) men and 55.5%(25) women. The mean age of the men was 27.3 years, the mode 24.0 years and the median 26 years, while the mean, median and mode of the age of the women was 25.0, 24.0, and 18 years respectively.

Table 4.1 Age and gender distribution of the respondents (n = 197)

AGE DISTRIBUTION	MEN		WOMEN	
	FREQ.	%	FREQ.	%
18 – 20 years	8	5.3	13	28.9
21 – 30 years	107	70.4	25	55.5
31 – 40 years	27	17.8	7	15.6
41 + years	10	6.5	0	0
TOTAL	152	100.0	45	100.0

4.2.2 Place of residence

The majority of the respondents, 93.9%(185), resided in Soweto; and the mean residency period in the township was 19.0 years. The other twelve respondents were visiting the township from neighbouring areas.

4.2.3 Marital Status

The marital statuses of the respondents are shown in Table 4.2. The majority, 68.5%(135), were single.

Table 4.2 Marital status of the respondents (n = 197)

MARITAL STATUS	FREQUENCY	PERCENTAGE	CUMULATIVE PERCENTAGE
Single	135	68.5	68.5
Married	39	19.8	88,3
Living with a partner	20	10.2	98,5
Separated/divorced	3	1.5	100.0
Widowed	0	0.0	100.0
TOTAL	197	100.0	

4.2.4 Education

Respondents were asked the type of education they had and these were categorised as shown in Table 4.3. The median grade of education was 8.

Table 4.3 Educational status of the respondents (n = 197)

TYPE OF EDUCATION	FREQUENCY	PERCENTAGE	CUMMULATIVE PERCENTAGE
No formal Education	5	2.5	2.5
Primary Education (Grade 1 – 7)	78	25.9	28.4
Secondary Education (Grade 8 – 12)	100	64.5	92.9
Tertiary Education	14	7.1	100.0
TOTAL	197	100,0	

4.2.5 Employment Status

The employment status and not the type of occupation of the respondents were recorded. This is shown in Table. 4.4. A large proportion of the respondents 43.2%(85) were unemployed at the time of the study.

Table 4.4 Employment status of the respondents (n = 197)

EMPLOYMENT STATUS	MEN		WOMEN	
	FREQ.	%	FREQ.	%
Employed	74	48.7	2	17.8
Unemployed	59	38.9	26	57.8
Student	19	12.4	11	24.4
TOTAL	152	100.0	45	100.0

4.3 Clinical syndromes of sexually transmitted diseases.

The urethral discharge and swollen testis syndrome constituted the highest proportion of STDs diagnosed, 43.1%, followed by genital ulcer disease, vaginal discharges and lower abdominal pain with 36.0%, 7.1% and 4.1% respectively. The women accounted for 24.0%(17) of the respondents with genital ulcer disease. Table 4.5 indicates the proportions of all clinical syndromes diagnosed in the study.

Table 4.5 Clinical STD-syndromes as defined by the syndromic approach (n = 197).

CLINICAL SYNDROME	FREQ.	%	CUM %
1. Urethral discharge and swollen Testis	85	43.1	43.1
2. Genital ulcer disease (including LGV)	71	36.0	79.1
3. Vaginal discharge	14	7.1	86.2
4. Lower abdominal pain	8	4.1	90.3
5. Pubic lice	6	3.1	93.4
6. Genital warts	6	3.1	96.5
7. Herpes	5	2.5	99.0
8. Molluscum contagiosum	2	1.0	100.0
Total	197	100.0	

4.4 Reason for encounter

Information on the respondents actual reason for encounter, which includes their views, feelings, fears and expectations of their presenting complaints was obtained through a patient-centred approach (see section 3.5). Respondents concerns of their presenting illnesses as determined by their reasons for encounter were categorised as shown in Table 4.6 below. The respondents main concern appeared to be a concern of sexual dysfunction, sterility, and infidelity rather than a concern of contracting a life threatening

sexually transmitted disease such as HIV infection. Contraction of the AIDS-virus was a concern of only 21.0%(32) of the men and 15.6%(7) of the women respectively

Table 4.6 Reason for encounter (n=197).

REASON FOR ENCOUNTER	MEN		WOMEN	
	FREQ.	%	FREQ.	%
1. Fear of death*	5	3.3	2	4.5
2. Fear of HIV/AIDS*	32	21.0	7	15.6
3. Fear of STD*	34	22.4	10	22.2
4. Fear of sexual dysfunction*	45	29.6	15	33.3
5. Fear of loss of sterility/infertility*	33	21.7	8	17.8
6. Fear of cancer*	3	2.0	3	6.6
TOTAL	152	100.0	45	100.0

*Concern or fear of these diseases/illnesses in the respondents without the diseases/illnesses or until the diagnosis is proven.

4.5 Knowledge of HIV/AIDS

When respondents were asked if they had a good knowledge of HIV/AIDS, more than half, 53.3%, (24 females and 81 males) responded positively while 46.7%, (21 females and 71 males) thought their knowledge was inadequate.

4.5.1 Source of Information

The most effective source of information about HIV infection and AIDS proved to be the news media, especially television, followed by the health worker, friends and families. Table 4.7 represents the sources of information that the respondents believed to be the most effective.

Table 4.7 Sources of information regarding HIV infection (n=197).

INFORMATION SOURCE	FREQ.	PERCENT %	CUM. %
1. Television	55	27.9	27.9
2. Newspaper	35	17.8	45.7
3. Health Worker	29	14.7	60.4
4. Friends	25	12.7	73.1
5. Pamphlets/ Advertisements	20	10.2	83.3
6. Radio	16	8.1	91.4
7. Magazines	13	6.6	98.0
8. Family	4	2.0	100.0
TOTAL	197	100.0	

4.5.2 Transmission of HIV/AIDS

Respondents were asked about ways in which the AIDS-virus can be transmitted. Their positive, negative and uncertain responses in this regard are indicated in Table 4.8. It is

important to note that 16.2%, 8.6%, 12.2%, and 28.4% of the respondents believed that a person could be infected with the AIDS-virus from toilet seats, sharing of clothing, sharing of eating utensils, and from insect bites, respectively.

Table 4.8 Transmission of HIV infection (n = 197).

WAYS IN WHICH HIV VIRUS CAN BE TRANSMITTED	ANSWERED "YES"		ANSWERED "NO"		UNCERTAIN RESPONSES	
	FREQ.	%	FREQ.	%	FREQ.	%
	1. Water	5	2.5	176	89.3 *	16
2. Air	4	2.0	180	91.4 *	13	6.6
3. Toilet seats	32	16.2	146	74.1 *	19	9.6
4. Sharing of clothing	17	8.6	164	83.2 *	16	8.1
5. Sharing of eating utensils	24	12.2	157	79.7 *	16	8.1
6. Having sex with HIV-infected partner without a condom	189	95.9 *	6	3.0	2	1.0
7. Having sex with a HIV-infected partner with a condom	12	6.1	182	92.4 *	3	1.5
8. Insect Bites	56	28.4	107	54.3 *	34	17.3
9. Shaking hands	12	6.1	175	88.8 *	10	5.1
10. Blood transfusion	184	93.4 *	6	3.0	7	3.6

* indicates the scientifically correct response.

4.5.3 Groups at risk of HIV infection

To determine their knowledge of persons most at risk of contracting HIV infection, the respondents were asked to select from a list, groups of people that they thought were at a high-risk level. The positive responses are represented in Table 4.9.

Table 4.9 Groups at risk of HIV infection (n = 197)

RISK GROUPS IDENTIFIED AT RISK OF HIV INFECTION	POSITIVE RESPONSES	
	FREQ.	%
1. People who do not use condoms with casual Partners	189	95.9
2. People who have many sexual partners	194	98.5
3. Prostitutes	161	81.7
4. Heterosexuals	110	55.8
5. Drug addicts	101	51.3
6. Homosexuals	70	35.5
7. People who take care of patients with AIDS	27	13.7
8. People who use condoms with casual partners	6	3.0

4.5.4 Ability to Recognise a HIV-infected individual

The respondents were asked if they would be able to recognise a person who was infected with the AIDS-virus. Figure 4.1 illustrates their responses. Six percent claimed that they

would be able to identify a person with HIV by his/her appearance.

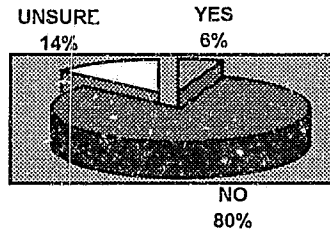


Figure 4.1 Ability to recognise a person with HIV infection (n=197)

4.5.5 Prevention of HIV/AIDS

Table 4.10 indicates the subjects' responses to the ways in which the AIDS-virus can be prevented from being transmitted from one person to another. Although most responses (92.9%), indicated that the use of the condom could limit the spread of the AIDS-virus, it is important to note that 8.1% and 6.6% responses indicated that the oral contraceptive pill and the intra-uterine device respectively prevented the transmission of HIV. Only 51.6% of the responses indicated that the control of STDs reduced the risk of HIV infection.

Table 4.10 Knowledge on the prevention of HIV infection (n = 197).

PREVENTION OF HIV-INFECTION	POSITIVE RESPONSES	
	FREQ.	%
1. Use of condoms	183	92.9
2. Prevention and treatment of STDs	102	51.8
3. Oral contraceptive pill	16	8.1
4. Intrauterine device (IUD)	13	6.6

4.5.6 Knowledge about condom usage

Respondents were asked about their knowledge and feelings on the use of condoms.

Table 4.11 indicates that the respondents' knowledge regarding the use of condoms were adequate, but a large proportion, 40.1%, felt that it made sex less enjoyable.

Table 4.11 Knowledge and beliefs about condom usage (n=197).

QUESTION:	YES		NO		DON'T KNOW	
	FREQ.	%	FREQ.	%	FREQ	%
DO YOU THINK CONDOMS:						
Makes sex less enjoyable?	79	40.1	64	32.5	54	27.4
Help prevent pregnancy?	195	99.0	1	0.5	1	0.5
Can prevent STDs?	193	98.0	2	1.0	2	1.0
Can prevent HIV?	193	98.0	3	1.5	1	0.5
Can be used more than once?	1	0.5	195	99.0	1	0.5
Should only be used with regular partners?	72	36.5	124	63.0	1	0.5
Should only be used with casual partners?	194	98.5	1	0.5	2	0.5
Are too expensive?	11	5.6	172	87.3	14	7.1

4.5.7 Period taken for AIDS syndrome to manifest

The respondents were asked about the time period it would take for HIV infection to develop into AIDS. Responses to each of the time periods “immediately”, “weeks”, “months” and “years” were recorded and these are shown in Figure 4.2 below. Majority of the responses, 87.3%, indicated that it would take “years”, followed by 34% of responses for “months”.

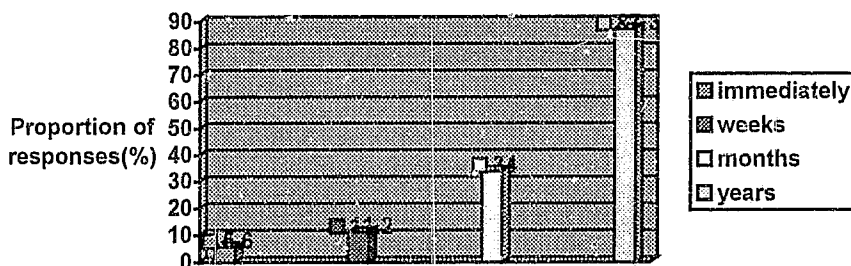


Figure 4.2 Period taken from HIV infection to AIDS disease (n=197)

4.5.8 Female Condom

Only 11.7% of the respondents had any knowledge of the availability of the female condom. Of all of the respondents, 88.9%(40) of the women and 77.9%(134) of the men were not aware that a female condom actually existed.

4.6 Beliefs and Attitudes about HIV-infection and AIDS

4.6.1 The impact of HIV/AIDS on the South African population

One hundred and eighty-five (93.9%) of the respondents (n=197) responded positively when asked if AIDS posed a serious threat to the health of the population of South Africa.

4.6.2 Attitudes towards people living with HIV/AIDS

Only 34(17.3%) of the respondents knew another person infected with the AIDS-virus.

When the respondents were asked whether people living with HIV or AIDS should be removed from society, 37.6%(74) agreed, 42.6%(84) disagreed while 19.8%(39) were uncertain.

When asked whether they would befriend a person living with HIV or AIDS, 40.6%(80) of the respondents said that they were willing; 42.6%(84) would not, while 16.8%(33) were uncertain.

One hundred and fourteen (57.9%) of the respondents said that they would inform their sexual partner/s should they contract the AIDS-virus, 19.9%(39) said that they would not inform, while 22.3%(44) were uncertain whether they would disclose their HIV-status should they become infected.

4.7 Sexual Practices

4.7.1 Number of sexual partners

Table 4.12 indicates the number of sexual partners the respondents had at the time the study was conducted. One hundred and twenty-nine (65,4%) of the respondents (n=197) had multiple sexual partners.

Table 4.12 Number of sexual partners (n=197).

NUMBER OF SEXUAL PARTNERS.	MEN		WOMEN	
	FREQ.	%	FREQ	%
One partner only	30	19.7	38	84.5
Two partners	78	51.3	7	15.5
Three and more partners	44	29.0	0	0.0
TOTAL	152	100.0	45	100.0

A large proportion of the men, 80.3%(122) had more than one sexual partner, which included 29.0%(44), who had three or more sexual partners. Only 19.8%(30) of the men had only one sexual partner Majority of the women, 84.5%(38) were involved in monogamous relationships. None of the women had more than two sexual partners.

4.7.2 Frequency of condom usage with sexual partner/s

Table 4.13 indicates how often the men and women used condoms with their sexual partner/s. It is important to note that of 67.7% (103) of the men who did not use condoms at all, 75.7%(78) had two or more sexual partners. Of the men who were not consistent condom users a large proportion 87.5%(42) had two or more sexual partners. Only 1.7% (2) of the men used condoms consistently with their multiple sexual partners.

Of the 73.3%(33) women who did not use condoms at all with their sexual partners, 84.2% (28) had one sexual partner only and 15.2% (5) women had two sexual partners.

Table 4.13 Condom usage among sexual partner/s (n=197)

CONDOM USAGE	NO. OF SEXUAL PARTNERS OF THE MEN					NO. OF SEXUAL PARTNERS OF THE WOMEN				
	1	2	>2	Total		1	2	>2	Total	
				Freq.	%				Freq.	%
All of the time	1	2	0	3	2.0	3	2	0	5	11.1
Some of the time	4	22	20	46	30.3	7	0	0	7	15.6
Not at all	25	54	24	103	67.7	28	5	0	33	73.3
TOTAL:	30	78	44	152	100	38	7	0	45	100

4.7.3 Previous STD treatment and counselling regarding HIV/AIDS

One hundred and thirteen of all respondents (n= 197) indicated that they were previously treated at the clinic for a STD, and as shown in Figure 4.3, a large proportion, 66.4%(68 men and 7 women) of the respondents did however received counselling by the healthcare providers on HIV infection, AIDS and the use of condoms at the time of their previous diagnosis.

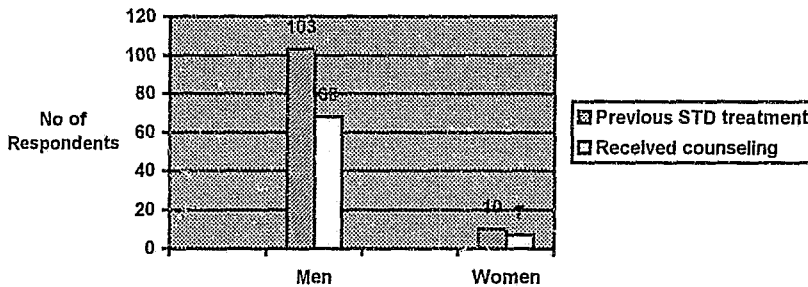


Figure 4.3 Previous STD treatment and counselling (n=113)

Fifty-two respondents, 46.1%, (48 men and 4 women), of the 113 respondents previously treated for a sexually transmitted disease indicated that the main reason for them not using condoms regularly was that it made sex less enjoyable.

4.7.4 Cure for STD and HIV/AIDS

Of the 197 respondents who presented with a sexually transmitted disease 77.7%(153) believed that they could be cured; only 3.0%(6) felt there was no cure for their presenting illnesses, while 19.3%(38) were uncertain.

Most importantly 20.8%(40) of the respondents believed that HIV or AIDS could be treated and cured; 18.8%(37) of the respondents were uncertain, while 60.4%(119) were sure that no cure existed for the AIDS-virus.

Figure 4.4 indicates the proportions of the positive responses that STDs and HIV/AIDS could be cured.

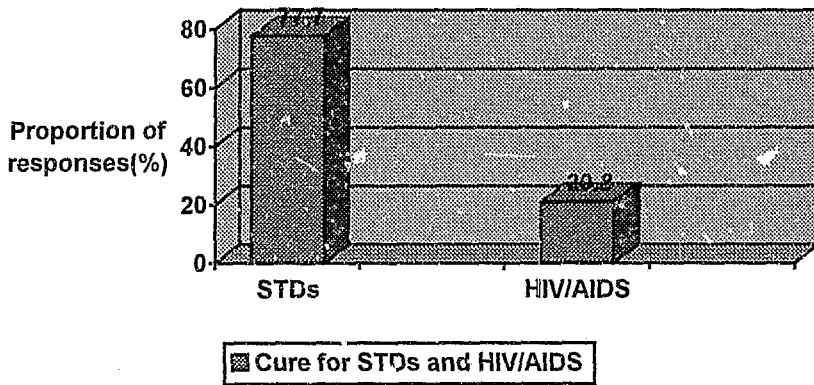


Figure 4.4 Frequencies for cure of STDs and HIV/AIDS (n=197).

Also, of the 113 respondents that were previously treated for a STD, 74.3% (84) believed that sexually transmitted diseases were curable, while 17.6%(20) believed that HIV/AIDS could be cured.

4.7.5 Requests for HIV-testing

When the respondents were asked if they would consider taking a HIV-blood test, 37.5%(57) of the men and 40%(18) of the women responded positively. This is illustrated in Figure 4.5 below.

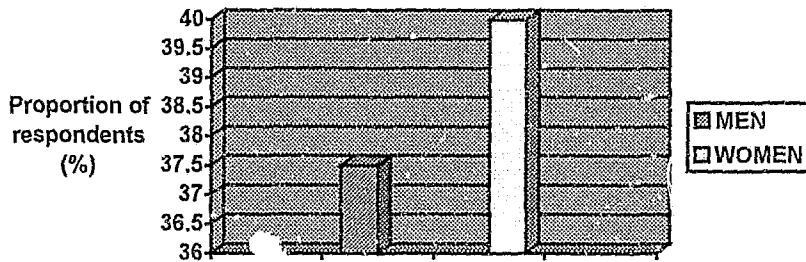


Figure 4.5 Respondents willing to take an HIV-blood test (n=75).

At the end of the interviews, when the respondent were asked if they required further information about AIDS and HIV infection, 98.5%(194) of the respondents (n= 197) responded positively.

4.8 Variables found to be significantly associated with perceived knowledge regarding HIV/AIDS

Just over half of all respondents (53.3%) indicated at the start of the interview that they had an adequate knowledge of HIV/AIDS. This variable correlated with the level of education, yielding a p-value of 0.00153.

The variable of having a perceived adequate knowledge was cross tabulated against various other variables assessing knowledge of transmission, prevention, groups at increased risk and other general knowledge on HIV/AIDS. Variables were considered to be significant when cross-tabulated and yielded a p-value of <0.05. These are shown in Table 4.14.

Table 4.14 Variables significantly related to having adequate knowledge of HIV/AIDS.

VARIABLE	p- VALUE
Drug addicts are at an increased risk of HIV/AIDS	0.000056
Heterosexuals are at an increased risk of HIV/AIDS	0.0033
HIV/AIDS can be transmitted by toilet seats	0.0046
Oral contraception limits the spread of HIV/AIDS	0.0059
Condom use prevent STDs and HIV infections	0.0063
Intrauterine devices limits the spread of HIV/AIDS	0.0069
Prostitutes are at an increased risk of HIV/AIDS	0.0089
Takes months for AIDS to manifest once infected with HIV	0.0091
HIV/AIDS can be transmitted by insects	0.0105
Takes immediately for AIDS to manifest once infected with HIV	0.0113
Availability of the female condom	0.0193
Homosexuals are at an increased risk of HIV/AIDS	0.0255
Takes weeks for AIDS to manifest once infected with HIV	0.0278
HIV/AIDS can be transmitted by air	0.0307

No correlation existed between having a perceived adequate knowledge of HIV/AIDS and the variables for, age-group, source of information, and that it takes years for AIDS to manifest once infected with HIV.

4.8.1 Variables of attitudes and beliefs that were significantly associated with having a perceived adequate knowledge of HIV/AIDS

The variables relating to attitudes and beliefs that were significantly associated with the variable of having a perceived adequate knowledge of HIV/AIDS are shown in Table 4.15. The variable that showed no correlation were the belief that both STDs and HIV can be cured

Table 4.15 Variables positively related to having an adequate knowledge of HIV/AIDS

VARIABLE	P-VALUE
Befriending a person with HIV/AIDS	0.00109
People living with AIDS should remain as part of society	0.00059
Belief that condoms make sex less enjoyable	0.0052
HIV/AIDS is a serious threat to the population of South Africa	0.0059
Belief that condoms are expensive	0.0163
Ability to inform spouse/sexual partner of ones' HIV/AIDS status	0.0403

All the variables that were related to sexual behaviour and practices showed absolutely no correlation with having an adequate knowledge of HIV/AIDS. These variables included

the frequency of condom usage, having multiple sexual partners, previous treatment for a STD, and the perceived risk of HIV infection by respondents' consideration of taking an HIV blood test.

4.9 Variables significantly related to usage of condoms to prevent HIV infection

Only two variables showed a significant difference to the use of condoms to prevent HIV infection. These were the knowledge relating to the contraction of HIV by having sex with a HIV-infected person without using a condom ($p < 0.01$), and the belief that condoms make sex less enjoyable ($p < 0.05$). Alarming no correlation existed for variables related to sexual practices and behaviour, which included the fact that condoms prevented sexually transmitted diseases, the use of condoms with multiple sex partners limits the spread of HIV/AIDS, and previous treatment of STDs, including counselling regarding HIV/AIDS and condom usage.

4.10 Variables significantly associated with low frequency of condoms usage with sexual partner/s

All variables related to knowledge, attitudes and beliefs of HIV/AIDS did not show any significant association with low frequency of condom usage with sexual partner/s. The only positive correlation existed with variables relating to sexual behaviour, and perceived risk of contracting HIV/AIDS. These are shown in Table 4.16.

Table 4.16 Variables significantly related to the low frequency

of condom usage with sexual partner/s

VARIABLES	P-VALUE
Belief that condoms makes sex less enjoyable	0.00089
The willingness to take an HIV blood test	0.0007

4.11 Variables significantly associated with having multiple sexual partners

No association existed between having multiple sexual partners and variables relating to knowledge of HIV/AIDS. The only significant correlation existed with variables related to sexual behaviour and condom usage. These are shown in Table 4.17.

Table 4.17 Variables significantly associated with having multiple sexual partners

VARIABLES	P - VALUE
Having had previous treatment for STD	0.00343
Frequency of sexual activity without condom usage	0.0107
Belief that STDs can be cured	0.0135

4.12 Variables significantly associated with having had previous treatment for a STD.

Table 4.18 indicates the variables that showed a significant association with the variable of having had previous treatment for a STD.

Table 4.18 Variables significantly associated with previous treatment of a STD

VARIABLE	P - VALUE
Male gender	0.00006
Having multiple sexual partners	0.00034
Belief that intrauterine devices limits the spread of HIV infection	0.0050
The willingness to take an HIV blood test	0.0241
Age group 21 - 30 years	0.0359
Belief that oral contraceptives limits the spread of HIV infection	0.0374
Being unemployed	0.0453

4.13 Variables significantly associated with the willingness to take a HIV blood test

40% of the respondents were willing to take a HIV blood test (see section 4.7.5), indicating their perceived risk for HIV-infection. The willingness to take a HIV blood test was found to be significantly associated with the variables shown in Table 4.19.

Table 4.19 Variables significantly associated with the willingness to take an HIV blood test

VARIABLES	P – VALUE
Ability to inform spouse or sexual partner of HIV/AIDS status	0.000012
Belief that intrauterine devices limits the spread of HIV infection	0.000048
Drug addicts are at an increased risk of HIV infection	0.00021
Frequency sexual activity without of condom use	0.00072
Taking care of patients living with HIV/AIDS	0.0006
Condoms limits the spread of HIV infection	0.0016
Heterosexuals are at an increased risk of HIV infection	0.0018
Belief that HIV/AIDS can be cured	0.0019
Belief that oral contraceptives limits the spread of HIV infection	0.0034
Knowing someone living with HIV/AIDS	0.0062
Diagnosis of the presenting sexually transmitted disease	0.0105
Belief that HIV/AIDS can be transmitted by toilet seats	0.0145
Ability to recognise a person infected with HIV	0.0160
Previous treatment for a STD	0.0241
Education status	0.0281
Knowledge that HIV/AIDS poses a serious threat to the population of South Africa	0.0498

4.14 Variables significantly associated with the education level of the respondents

All variables were cross-tabulated with the level of education and those with significant differences are shown in the table below.

Table 4.20 Variables significantly associated with the level of education

EDUCATION	P - VALUE
Perceived knowledge of HIV/AIDS	0.0015
Ability to Inform spouse/sexual partner of ones' HIV/AIDS status	0.0165
Ability to recognise someone infected with HIV	0.0235
Belief that intrauterine devices limits the spread of HIV/AIDS	0.0251
Willingness to take a HIV-blood test	0.0281

4.15 Age-related differences

All age groups were cross- tabulated against all other variables. No significant differences between the different age groups were found except that age-group 21 – 30 years were found closely associated with a previous treatment for sexually transmitted diseases (see section 4.12).

4.16 Gender-related differences

Both male and females were cross-tabulated against all other variables.

No significant differences existed between the genders for variables related to knowledge regarding transmission, prevention and groups at risk of HIV infection.

The female gender showed significant differences to variables relating to attitudes of HIV/AIDS. The females believed more strongly than the males that people living with HIV should remain as part of society ($p < 0.05$), and were more likely to befriend a person infected with HIV or had AIDS ($p < 0.05$).

Interestingly, the females used condoms less frequently ($p < 0.01$), than their male counterparts. This observation, should be read with caution as 84.4%(38) of the females were involved in monogamous relationships of which 73.7%(28) did not use condoms at all (see section 4.7.2) and also from cultural point of view the females may have less power in the decision of using condoms during sexual intercourse⁴².

A significant difference among the males was that they were more likely to have had previous treatment for a sexually transmitted disease ($p < 0.01$), had multiple sexual partners ($p < 0.01$) and received counselling regarding HIV/AIDS and condom usage ($p < 0.05$).

5 DISCUSSION

5.1 Introduction

The accurate assessment of knowledge, beliefs, attitudes and sexual practices regarding HIV infection and AIDS by way of an interview is fraught with difficulties. The use of an interpreter, a random sampling technique, a target specific pre-tested structured questionnaire, and together with an uncoerced confidential approach and high response rate contributed to the validity of the data and makes for a useful study. This chapter draws conclusions in line with the study's aims and objections and make comparisons between this study's findings and that of both local and international literature. Some of the findings are discussed with reference to the health belief model.

5.2 Profile of the respondents

The young age of the sample, which consisted mainly of the age group between 21 and 30 years, is consistent with other studies^{55,33}. The high rates of unemployment (43.2%), single marital status (68.5%), together with a predominance of the male gender (77.2%) and low to medium educational level is typical of a region of social instability in which there is high prevalence and spread of STDs, including HIV⁵⁶.

5.3 STD profile

Urethral discharge (43.1%) followed by genital ulcer disease (36.0%) was the most frequently diagnosed STDs of the respondents. These results are consistent with an STD surveillance study⁵⁷ that was carried out for other regions of the Gauteng province which showed that urethral discharged (24.2%) was the most prevalent STD syndrome followed by genital ulcer disease (10.3%).

5.4 Reason for encounter

It is interesting to note that only 21.0%(32) of the male respondents' and 15.6%(7) of the female respondents' major concern regarding their presenting problems of sexually transmitted diseases were that of contracting the HIV infection. Respondents were mainly concerned about sexual dysfunction, guilt of infidelity and sterility as the result of the STD. It is therefore important when treating patients with sexually transmitted diseases, to explore patients' fears, feelings, ideas and expectations of the presenting illness; as people bring with them, not just a set of STD symptoms, but also strongly internalised perceptions of what the disease mean to them, that may pose a threat to their relationships. Family physicians and other health care workers are in an ideal working environment to assess these behaviours and to report on them. There are therefore challenges and opportunities involved in providing STD-care that go far beyond diagnosing and dispensing medicines. Reason for encounter can thus contribute

significantly when formulating prevention programmes to prevent the spread of HIV/AIDS.

5.5 Source of information

The respondents considered the mass media such as television (27.9%), radio (8.1%) and newspaper (17.8%) as their most important source of information regarding HIV/AIDS. Unlike many other countries these media are under-utilised in South Africa in educating communities about AIDS³³. Consistent with a study carried out on STD-patients²² in Johannesburg, is the low ranking of the health care provider (14.7%) in providing information about HIV/AIDS. In this study by Sekerto et al in 1993 only 31% of the respondents indicated that they received their information about HIV/AIDS from the health care provider.

A great concern is that those previously treated at the clinic for a STD, a large proportion (33.6%) did not receive any counselling regarding HIV/AIDS or condom usage. Furthermore, a 98.5%(194) of the respondents requested further information about AIDS and HIV infection after the interview. These results suggest that there is scope for further reduction in STD incidence through counselling of patients presenting with a sexually transmitted disease at this community health centre.

5.6 Knowledge of HIV/AIDS

A significant majority of the respondents, 53.3%, volunteered that their knowledge regarding HIV infection and AIDS was adequate. Similar results were also found with other studies done in South Africa among black gold miners¹⁴, STD-clinic attenders⁵⁸, and urban black mothers⁵⁹. Education correlated with the respondents perceived knowledge of HIV/AIDS ($p < 0.01$), which is also consistent with studies done in this country among black gold miners¹⁴, STD-patients⁶¹, and family planning clinic attenders⁶⁴.

Although most respondents felt their knowledge regarding HIV/AIDS was adequate a few important misconceptions relating to the transmission of the AIDS-virus existed. These included transmission of the virus via insects ($p < 0.05$), toilet seats ($p < 0.01$) and air ($p < 0.05$). Also a high proportion of responses indicated that the sharing of eating utensils could transmit the virus.

Groups of people at high risk of contracting HIV were readily identified, except for 13.7% of respondents who also believed that people caring for HIV/AIDS patients were at risk.

The concept of latency, an important part of understanding HIV infection and AIDS disease was not understood by a large proportion (20%) of the respondents (see Figure 4.1). This finding has also been described in other studies^{60, 61}. Most respondents also believed that after contracting the AIDS-virus the infected person

converted to the AIDS disease either immediately (5.6%), within weeks (11.2%) or months (34%).

A majority of the respondents had adequate knowledge that condoms prevented HIV infection, yet some important false beliefs prevailed. The use of the intrauterine device ($p<0.01$) and oral contraception ($p<0.01$) were believed to prevent the spread of the AIDS virus. At the time this study was carried out the Department of Health were distributing the female condom at selected public health centres, yet neither the male (88.9%) nor the female (77.9%) respondents had any knowledge of its availability. Although the female condom has the potential to empower women to protect themselves simultaneously against both STDs and HIV infection little data has been found in the literature concerning awareness and use of this device among high-risk populations⁶². More proactive advocacy among health care providers and public programs need to analogue those efforts that promoted the male condoms in the 1980s.

Over half of the total respondents (51.8%) knew that the prevention of STDs limited the spread of HIV, but an alarmingly high proportion, 20.8%, believed that AIDS could be cured while another 13.8% were unsure whether a cure existed. A recent study among STD clinic attendees in the Cape Peninsula also found that up to 41% of the respondents believed that HIV/AIDS is curable³³. As long as people believe that AIDS can be successfully treated, they will not change their sexual behaviour. Therefore information alone is not sufficient to promote meaningful behavioural change.



5.7 Beliefs and Attitudes of HIV/AIDS

In terms of the health belief model, majority of the respondents (93.9%) considered AIDS to pose a serious threat to the health of the population (perceived severity) and some of the most important benefits of condom usage were identified (see Table 4.11). However, some of the barriers to condom use were also identified. The most significant of these barriers was that respondents believed condoms interfered with sexual pleasure. This was the belief of 40.1%(79) of the respondents. Another barrier identified was that although condoms were freely available at the health centre 5.6% of the respondents felt that it was too expensive to obtain. Similar reasons for not using condoms were found among clients attending public inner city STD-clinics⁶³ in Maryland USA. The main reasons included lack in partner trust, sex was less enjoyable and the lack of availability of condoms.

The respondents identified the benefits of condom use as depicted in Table 4.11, however in prospective studies⁴⁸, these same beliefs were not related to future condom use. Although the respondents' belief favoured condom use, other factors in addition to both belief and knowledge also influenced behaviour. The health-belief model was developed to explain why some people accepted recommended health behaviour and the others not. The model predicts that respondents who believe that they were susceptible to infections, that sexually transmitted diseases were serious, and that condoms could prevent disease transmission were more likely to use condoms.

Only 17.3% of the respondent knew another person with HIV/AIDS and the respondents' attitudes to people living with HIV/AIDS were not encouraging. A large proportion of the

respondents would not befriend a HIV/AIDS-infected person, nor accept them as part of their society within the community. Also 6.1%(12) of the respondents believed that shaking hands could transmit the AIDS-virus. These negative attitudes towards HIV/AIDS patients could have serious repercussions for future AIDS sufferers in the community. The ability to disclose a HIV-status to a spouse or sexual partner by 57.9%(114) respondents should they become infected was however promising.

Taking care of AIDS patients ($p<0.01$) and knowing someone with HIV/AIDS ($p<0.01$) correlated with the willingness to take an HIV- blood test. These are important concerns especially as communities need to equip themselves for the care of the expected high number of AIDS- related illnesses.

5.8 Sexual Practices and perceived risk of HIV-infection

While perceived knowledge was good and tested knowledge and attitudes of HIV/AIDS was fairly good, which is an important finding, the respondents' sexual practices was of a high risk. This discrepancy between knowledge and sexual behaviour were confirmed in many studies, conducted both locally and internationally^{64,65}. Behavioural factors therefore are integral to the dynamics of both STDs and HIV infection. The risk of becoming infected can be reduced by decreasing the number of sex partners and by using condoms consistently.

Although 92.9% of respondents knew that the use of condoms would effectively curb the spread of HIV infection, only a few (4.1%) used condoms at all times. Fifty- three

(26.9%) used condoms only occasionally, while 136 (69.0%) did not use condoms at all. The most common reason cited for inconsistent condom use was the inability to experience sexual pleasure. This finding of the reduction of sexual pleasure with the use of the condom is consistent with other studies done in South Africa among inner-city high school students⁴⁸, township school students⁶⁰, and STD-patients⁶¹, and indicates the need to increase positive attitudes towards condom usage. Learning to “eroticise” condom use increases positive attitudes towards condoms because it is suggested that perceived enjoyment of various sexual behaviours depends on the extent to which they are performed⁶⁶.

Even though 193 (98%) of the respondents indicated that they believed that a reduction in multiple partners would decrease the risk of contracting the HIV infection, one hundred and twenty-nine (65,5%) of the respondents (n=197) had multiple sexual partners at the time the study took place. Eighty-five and 44 respondents had two and three or more sexual partners respectively. However, the high proportion (66.4%) of respondents previously treated for STDs, who received counselling from health workers at this healthcare centre was encouraging.

The men in this study, consistent with another local study⁶⁷, were at an increased risk of HIV infection as a significant number, 80.3%(122), of the male respondents had multiple sexual partners, and only 1.7%(2) of them used condoms consistently. Furthermore 91.2%(103) of the respondents (n=113) that had previous treatment for STDs were men.

This is consistent with recent research done on men in other parts of the country of South Africa^{68,69}.

The female respondents were predominately involved in monogamous relationships (84.5%) and only 11.2%(5) used condoms consistently, yet they presented with sexually transmitted diseases, including 15.6%(7) who had previous episodes of STDs. This implies that they were at an even higher risk of HIV infection than their male counterparts. Moreover only 15.6%(7) of the women had multiple sexual partners, and of these 71.5%(5) did not use condoms at all during sexual intercourse. These findings are consistent with those of Karim⁴⁸ and Montgomery⁷⁰, which concluded that that women lack the power to initiate safer sex behaviour.

Only a few men and women perceived themselves at risk of HIV infection and were willing to take a HIV-blood test. This lack of perception of personal risk is also a common finding to other studies^{14,17}. The most significant reasons for the willingness to take a HIV-blood test are shown in Table 4.19. These reasons related mainly to the transmission and prevention of HIV infection, and condom usage.

It is important to note from Table 4.18 that being an unemployed male between the age of 21 and 30 years, having multiple sexual partners, believing that intrauterine devices and oral contraception prevented HIV infection and perceived themselves at risk by willing to take a HIV-blood test correlated well with a previous treatment for a STD. These are suggestive of an increased risk of contraction of the AIDS-virus.

Determining the occurrence of a prior STD had two purposes. Firstly it verified a risk behaviour that permitted prior exposure and infection by a sexually transmitted disease and, secondly STDs are implicated as a cofactor for HIV infection⁷¹. Therefore a previous history of a sexually transmitted disease among the respondents attending this community health centre is an indication of vulnerability to HIV/AIDS. These findings indicate an urgent need for intervention programmes to decrease the risk of HIV infection. The STD and HIV epidemics are interdependent. Similar behaviours, such as frequent unprotected intercourse with different partners, place the individual at high risk of both infections. Therefore the development of effective programmes for the control of STDs is a potential strategy for HIV control.

5.9 *Limitations of the study*

No difficulties in the use of the English language in the administration of the questionnaire were experienced, and the use of the interpreter was minimal. It would however been preferred to have administered the interview in the respondents' own language.

With regards to the syndromic management of STDs, the syndromes of vaginal discharge and lower abdominal pain which pertains only to women, has the limitation in that it may include infections such as candidiasis and trichomoniasis, which are not conventionally classified as "true" sexually transmitted diseases.

Shortcomings of the questionnaire was that it excluded some important issues relating to condom use, such as its association with illicit sex, lack of trust and intimacy. These factors were shown to influence condom usage among STD-patients⁶¹.

Condom use has been shown to vary according to the sexual activity performed; rates of use vary with for anal, oral and vaginal sex⁷². A limitation of this study is that type of sexual activity was not reported or requested. The questions regarding sexual practices in the questionnaire assumed heterosexual sexual activity of the vaginal type.

A further limitation is that sexual practices including condom use were self-reported. Respondents may incorrectly give socially desirable responses rather than accurately characterising their sexual behaviour.

6 CONCLUSION

Patients attending the Chiawelo Community Health Centre for sexually transmitted diseases felt that they had a good perceived knowledge of HIV/AIDS, yet their tested knowledge showed important misconceptions regarding HIV transmission and prevention. Only a small proportion of the respondents' main concern of their presenting STD symptoms was that of contracting the AIDS virus. The male respondents were at an obvious increased risk of HIV infection because of high risk-taking sexual behaviour, which included having multiple sexual partners and low frequency of condom usage. The study showed more importantly, that although the women respondents had a lower level of risk-taking sexual behaviour they were still presenting with sexually transmitted diseases and were at risk of HIV infection. Both the men and women perceived level of risk of HIV infection were low. The health-service at the community health centre regarding the prevention of HIV/AIDS was not optimal as a large proportion of respondents previously treated for STDs were not counselled regarding HIV/AIDS and condom usage. Furthermore, a large proportion of the respondents requested further information regarding HIV/AIDS after the interview, which indicated a lack of preventative education at the centre. As shown in this study there is also an urgent need for these preventative programmes to promote positive attitudes towards people living with HIV/AIDS. Although the respondents' knowledge of HIV/AIDS was fairly adequate they do not perceive themselves at risk of infection and therefore did not feel the need to change their behaviour. These findings are consistent with a substantial amount of research

in the social-science literature that suggests that changing peoples' knowledge and attitudes is not enough to change their behaviour⁷³.

7 RECOMMENDATIONS

The finding of important misconceptions about HIV/AIDS transmission despite perceived good knowledge by respondents highlights an important recommendation to the Department of Health to review its messages about HIV/AIDS, as it seems that there is still poor knowledge in the greater community about HIV/AIDS. Prevention programmes that are required at this community health centre should form an important component of public health efforts to contain the current epidemic of HIV infection and other sexually transmitted diseases. As a group, these men and women who seek treatment for STDs are at a higher risk than the general population and less likely to be consistent condom users. However, among these STD clinic attendees, there is substantial diversity. There were significant differences in sex practices and condom use, as well as in gender related knowledge and attitudes. To be most effective, educational intervention must also address this diversity to meet specific needs of this community.

The results of this study suggests that knowledge and concerns do not appear to be sufficient for preventing risky behaviour and presents a need to reconsider some of our HIV/AIDS education and prevention efforts at the health centre. Thus far, no scientific attempted intervention has significantly altered the course of the epidemic²¹. Education programmes may succeed in disseminating information, but are far less successful in bringing about behavioural change²². The “knowledge-attitudes-practices (KAP),” framework that views knowledge and attitudes as primary determinants of behaviour is limited. As researchers we need to develop HIV/AIDS prevention programmes, which

conceptualises sexual behavioural practices more broadly than the KAP model. The use of the patients' reason for encounter² and the health belief model¹ in future preventative programmes may prove useful. Furthermore, political, social and economic factors often create conditions, which make it extremely difficult for people to change their sexual lifestyles¹⁴.

Researchers need to develop and evaluate an innovative educational programme that not only transmit information about health risks but also changes the culture and context, in which people make decisions about sexual behaviour. These interventions should not only include perceptions of health but also be based on the psychosocial context of that particular group needing the intervention. These programmes should also remove the stigmatisation attached to the disease so that communities and families would be able to take care for the victims of the disease without any form of discrimination. If such programmes are to succeed, the primary healthcare organisations with family physicians are likely to be the most successful, instead of specialised vertical services.

Health workers should take more opportunities in providing information about HIV/AIDS when managing people with sexually transmitted diseases. The use of the news media in future prevention programmes at the clinic may prove useful in preventative education and promoting condom usage, as it accounted for the most important source of information regarding HIV/AIDS. The health service at this clinic should be commended for the large proportion (66.4%) of respondents previously treated for STDs, who received counselling from health workers. They should also be encouraged to improve this rate.

APPENDICES

APPENDIX A

APPROVAL FOR THE STUDY TO BE CONDUCTED AT THE CHIAWELO COMMUNITY HEALTH CENTRE

PROVINCIAL
ADMINISTRATION
PWV

Enquiries: DR S NATHA

Address: SOWETO C H C
PRIVATE BAG X6
BERTSHAM
2013

Reference:

Tel: 933-0000

Fax: 933-1730

Date: 21 September 1995

TO WHOM IT MAY CONCERN

Regarding research at Chiawelo Community Health Centre by Dr Pillay -
Family Medicine Department - Wits University.

Respected Doctor

We Soweto CHC Management are pleased to grant you the permission to conduct your
proposed research at Chiawelo CHC.

Wish you well.



DR S NATHA
DIRECTOR

SN/mt

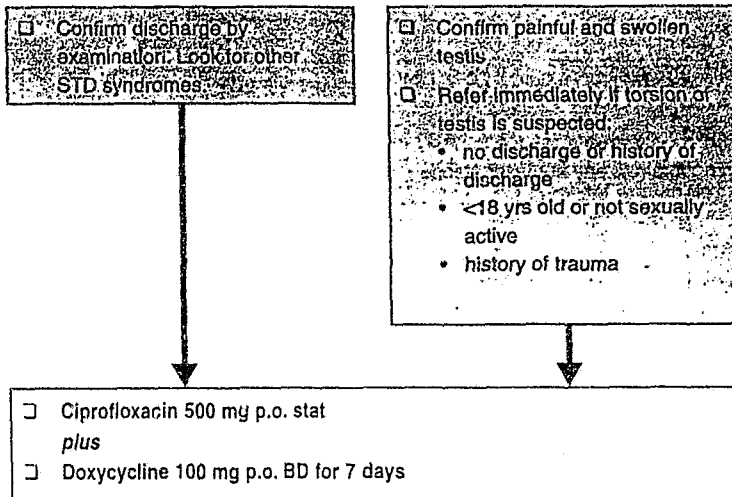
APPENDIX B

**PROTOCOLS
FOR THE
SYNDROMIC CASE MANAGEMENT
OF
SEXUALLY TRANSMITTED DISEASES**

**DIRECTORATE: HIV/AIDS and STDs
DEPARTMENT OF HEALTH
PRETORIA
SOUTH AFRICA**

PROTOCOL 1

Urethral discharge and swollen testis



- Manage partner for cervical infection as in protocol 3.
- Consider treating a person with burning on micturition, in the absence of a discharge, if there is a significant risk of the person having acquired an STD.
- Some provinces have chosen to use a 250 mg dose of Ciprofloxacin.

PROTOCOL 2

Genital ulcers

- Confirm presence of ulcer(s) by examination.
Look for other STD syndromes.



- Benzathine Penicillin 2.4 MU IMI stat
plus
- Erythromycin 500 mg p.o. TDS for 5 days
- Aspirate any fluctuant glands

Complete treatment

Counsel on safer sex and HIV risk

Condom promotion

Contact management

- If allergic to penicillin, give Erythromycin 500 mg QID for 14 days.
- If on return, lesion(s) healing but not cured: ie. decrease in size or decrease in number, continue with another course of Erythromycin. If lesions are worse, **refer**.

PROTOCOL 3

Vaginal discharge

- Confirm abnormal discharge by examination.
- Do digital examination
- Do speculum examination wherever possible:
 - look for other STDs within the vagina
 - feel and view the cervix and if abnormality suspected, **refer**

- For young sexually active, non-pregnant women treat for cervical infection
- Ciprofloxacin 500 mg p.o. stat
plus
- Doxycycline 100 mg BD p.o. for 7 days
plus
- Metronidazole 2 G p.o. stat

- For pregnant women and peri/post menopausal women
- Metronidazole 2 G p.o. stat
(not in first trimester of pregnancy)
- Ask to return *

- IF candidiasis detected – itchy, 'cottage cheese' discharge
ADD – Clotrimazole 500 mg pessary insert stat

**Complete treatment • Counsel on safer sex and HIV risk
• Condom promotion • Contact management**

- If woman treated for cervical infection manage partner as in protocol 1.
- * If on return, discharge not improved, treat for cervical infection – if pregnant give Spectinomycin 2 G IMI stat plus Erythromycin 500 mg QID for 7 days or **refer**.
- Ceftriaxone 125 mg IMI stat may be used instead of Spectinomycin.
- Some provinces have chosen to use a 250 mg dose of Ciprofloxacin.

PROTOCOL 4

Lower abdominal pain

- Confirm lower abdominal pain and cervical motion and adnexal tenderness by examination. Look for other STD syndromes.
- Refer to hospital if:
 - patient very ill, cannot walk upright, temp $>38.5^{\circ}\text{C}$
 - severe abdominal tenderness or pelvic mass
 - pregnancy or recent delivery/abortion
 - abnormal vaginal bleeding
 - missed or overdue period



- Ciprofloxacin 500 mg p.o. stat
plus
- Doxycycline 100 mg p.o. BD for 7 days
plus
- Metronidazole 400 mg p.o. BD for 7 days

Complete treatment

Counsel on safer sex and HIV risk

Condom promotion

Contact management

- Manage partner as in protocol 1.
- Some provinces have chosen to use a 250 mg dose of Ciprofloxacin

PROTOCOL 5

Neonatal Conjunctivitis

Confirm purulent discharging eye(s) by examination

Treat baby, mother and partner(s)

Baby

- Irrigate eyes
- Spectinomycin 25 mg/kg/IMI stat maximum dose 75 mg
plus
- Erythromycin 62.5 mg QID p.o. for 7 days

Contacts

Mother

- Spectinomycin 2 G IMI stat
plus
- Erythromycin 500 mg p.o. QID for 7 days

Father / partner(s)

- Treat as in protocol 1

Complete treatment

Counsel on safer sex / HIV risk

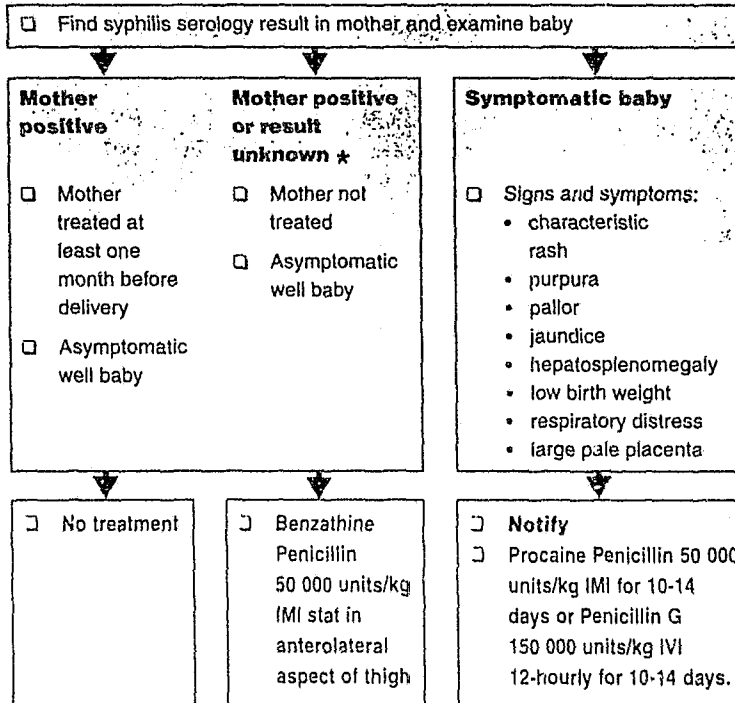
Condom promotion

Contact management

- Ceftriaxone 25-50 mg IMI stat may be used in the neonate and 125 mg IMI stat in the mother instead of Spectinomycin.
- In some provinces babies with conjunctivitis are referred and Ciprofloxacin is given to breast feeding mothers as Spectinomycin is not available at the primary care level.

PROTOCOL 6

Neonates with or at risk of congenital syphilis



Complete treatment • Counsel on safer sex and HIV risk
• Condom promotion • Contact management

- * If testing available on site – test and treat mother and baby accordingly. Every effort should be made to keep mother and baby together during treatment.
- Remember to treat mother and father/partner(s) if baby is treated or referred.

OTHER CONDITIONS

Herpes/Blisters

- Confirm vesicles or blisters.
- Treat with acyclovir, famciclovir or valaciclovir if available.
- Counsel on the nature of the disease and provide for pain relief.

Lymphogranuloma venereum (LGV)

- Confirm inguinal swelling/bubo in the absence of an ulcer.
- If ulcer present use ulcer protocol.
- Provide Doxycycline 100 mg BD for 14 days. Aspirate fluctuant glands.
- Provide Erythromycin 500 mg QID for 14 days if pregnant.

Warts

- Confirm wart(s). If less than 10 mm apply podophyllin weekly. If more than 10 mm, or within the vagina or in pregnant women, refer.

Pubic lice

- Confirm. Apply benzyl benzoate (25%) for 2 weeks.

Molluscum contagiosum

- Confirm. Apply tincture of iodine.

Latent syphilis

- Take blood for RPR/RVDRL if results are acted upon.
- If RPR positive, treat with Benzathine penicillin LA 2.4 MU IM1 stat weekly for 3 weeks. If treated in past year treat with one dose
- If allergic to penicillin give Erythromycin 500 mg QID for 14 days.
- If allergic to penicillin and pregnant refer for desensitisation.

APPENDIX C

QUESTIONNAIRE:

Knowledge, Attitudes, Beliefs and Practices concerning HIV-infection and AIDS among patients presenting with sexually transmitted diseases at a Soweto Community Health Centre.

Date of interview: -----

Clinical syndrome: -----

Sex:

Male	Female
<input type="checkbox"/>	<input type="checkbox"/>

I am a 1st. year post-graduate student of the Family Medicine Department of the University of the Witwatersrand carrying out a study on AIDS.

I wish to assess the knowledge, attitudes, beliefs and practices concerning HIV-infection and AIDS, of patients attending this clinic.

A request is therefore being made to you to participate in this study. Should you agree to do so, I will be asking you some questions. Any question you do not wish to answer, you need not do so, and you may withdraw from the interview at any stage.

I do not need your name, so your answers are truly anonymous.

Pamphlets on AIDS, and information on counselling will be provided after the interview if necessary or needed.

If you do not wish to be interviewed, the treatment given to you here **WILL IN NO WAY CHANGE OR BE JEOPARDISED.**

Do you wish to participate in this study?

Yes	
No	

A. REASON FOR ENCOUNTER:

Q.1. What is your reason for coming today?

B. DEMOGRAPHICS AND SOCIO-ECONOMIC CHARACTERISTICS:

Q.2. How old are you? -----

Q.3. Where do you live? -----

Q. 4. How long have you lived there? -----

Q.5. Are you presently:	
a. Single	
b. Married	
c. Divorced	
d. Widowed	
e. Separated	
f. Living with someone	

Q.6. How many years of schooling have you completed?	
a. No schooling	
b. Standard passed	
c. Tertiary education	

Q.7. What type of work do you do presently?

C. KNOWLEDGE:

Q.8. Do you think you have a good knowledge of AIDS?	
a. Yes	
b. No	

Q.9. Which of the sources below do you think has been most effective in conveying information about AIDS to you?	
a. Radio	
b. Television	
c. Newspaper	
d. Magazines	
e. Pamphlets/Advertisements	
f. Family	
g. Friends	
h. Health Worker	

Q. 10. How do you think that a person can be infected with the HIV-virus.			
	Yes	No	Don't know
a. Water			
b. Air			
c. Toilet seats			
d. Sharing clothing			
e. Sharing eating utensils			
f. Having sexual intercourse with a HIV-infected partner without using a condom			
g. Having sexual intercourse with a HIV-infected partner with a condom			
h. insect bites			
i. Shaking hands			
j. Blood transfusion			

Q. 11. Which group of people do you think are most likely to get AIDS?			
	Yes	No	Don't know
a. Homosexuals			
b. Prostitutes			
c. Drug addicts			
d. Heterosexuals			
e. People with many sexual partners			
f. People who use condoms with casual partners			
g. People who do not use condoms with casual partners			
h. People caring for people with AIDS			

Q. 12. Which of the following will be effective to prevent the spread of HIV?	Yes	No	Don't know
a. The contraceptive Pill			
b. Use of Condoms			
c. Intrauterine Device (IUD)			
d. Prevention and treatment of STDs.			

Q.13. If a person is infected with the HIV-virus, how long will it take for AIDS to manifest?	Yes	No	Don't know
a. Immediately			
b. Weeks			
c. Months			
d. Years			

Q. 14. Will you be able to recognise a person who has HIV - By the way he/she looks?	
a. Yes	
b. No	
c. Don't know	

Q. 15. Do you have any knowledge of the new female condom presently available?	
a. Yes	
b. No	

D. ATTITUDES AND BELIEFS:

Q. 16. Do you believe that AIDS poses a serious threat to the health of the population of South Africa?	
a. Yes	
b. No	

Q. 17. Do you know anyone who has HIV/AIDS?	
a. Yes	
b. No	

Q. 18. Do you believe that if a person has HIV/AIDS, their spouse or sexual partner should be informed?	
a. Yes	
b. No	
c. Don't know	

Q. 19. Should people who have the HIV-virus be removed from Society?	
a. Yes	
b. No	
c. Don't know	

Q. 20. Would you be friends with a person who has HIV?	
a. Yes	
b. No	
c. Don't know	

Q. 21. Do you think that condoms:	Yes	No	Don't know
	a. Make sex less enjoyable		
b. Help prevent pregnancy			
c. Can prevent STDs			
d. Can prevent HIV			
e. Can be used more than once			
f. Should only be used with regular partners			
g. Should only be used with casual partners			
h. Are too expensive			

Q. 22. Do you think that sexually transmitted diseases can be cured?	
a.	Yes
b.	No
c.	Don't know

Q. 23. Do you think that a person who has HIV can be cured?	
a.	Yes
b.	No
c.	Don't know

E. PRACTICES:

Q. 24. How many sexual partners do you have presently?	
a.	One only
b.	Two
c.	Three or more

Q. 25. Do you/ partner/s use condoms?	
a. All of the time	
b. Some of the time	
c. Not at all	

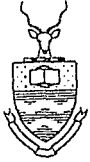
Q. 26. Have you ever been previously treated for a sexually transmitted disease?	
a. Yes	
b. No	

Q. 27. If 'yes' to Q. 23, have you been counselled re- AIDS/HIV, and the use of condoms?	
a. Yes	
b. No	

Q. 28. Would you consider having an AIDS/HIV test?	
a. Yes	
b. No	
c. Don't know	

APPENDIX D

PROTOCOL APPROVAL



Faculty of Health Sciences

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

7 York Road, Parktown, 2193 South Africa · Telegrams 'Witsmed' · Telephone (011) 647-1111 · Fax: (011) 643-4318

Student No: 8426392
Degree: MFamMed

27 November 1995

Dr A Pillay
P O Box 10209
LENASIA
1820

Dear Dr Pillay

APPROVAL OF PROTOCOL ENTITLED "KNOWLEDGE, ATTITUDES, BELIEFS AND PRACTICES CONCERNING HIV INFECTION AND AIDS AMONG PATIENTS PRESENTING WITH SEXUALLY TRANSMITTED DISEASES AT A SOWETO COMMUNITY HEALTH CENTRE"

I should like to advise you that the protocol that you have submitted for the degree of MFamMed has been approved by the Postgraduate Committee at its recent meeting, for continuation of candidature, (subject to ethics approval being obtained).

Professor B Sparks of the Department of Family Medicine has been appointed as your supervisor. You are asked to maintain regular contact with your supervisor who must be kept advised of your progress.

Please note that all candidates for higher degrees must make reference in their research reports to the clearance number of the relevant ethics committee. The final title should comply with the above approved title, and a signed declaration, noting that the work has been your own and not submitted to any other University, must also be included.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'G Gabriel'.

MRS G GABRIEL
FACULTY OFFICER (POSTGRADUATE)
FACULTY OF HEALTH SCIENCES

APPENDIX E

APPROVAL OF STUDY

BY THE

COMMITTEE FOR RESEARCH ON HUMAN SUBJECTS

Division of the Deputy Registrar (Research)

COMMITTEE FOR RESEARCH ON HUMAN SUBJECTS (MEDICAL)

Ref: R14/49 Pillay

CLEARANCE CERTIFICATE

PROTOCOL NUMBER M 951014

PROJECT Knowledge, attitudes, beliefs & practice concerning HIV infection and aids among patients presenting with sexually transmitted diseases at a Soweto Community Health Centre

INVESTIGATORS Dr A Pillay

DEPARTMENT Family Medicine, Soweto Com Health Centr

DATE CONSIDERED 951027

DECISION OF THE COMMITTEE *

Approved unconditionally

DATE 951113

CHAIRMAN *P. P. P. P.* Professor P E Cleaton-Jones

* Guidelines for written "informed consent" attached where applicable.

c c Supervisor: Professor B L W Sparks
Dept of Family Medicine, Medical School

===== DECLARATION OF INVESTIGATOR(S) =====

To be completed in duplicate and ONE COPY returned to the Secretary at Room 10001, 10th Floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should a departure be contemplated from the research procedure approved I/we undertake to resubmit the protocol to the Committee

DATE..... *20/11/95*SIGNATURE *[Signature]*

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

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