THE UNIVERSITY OF THE WITWATERSRAND

THE SCHOOL OF PUBLIC HEALTH

SEXUALLY TRANSMITTED INFECTION (STI) AND HIV/AIDS RELATED KNOWLEDGE, ATTITUDES, PERCEPTIONS AND BEHAVIOUR AMONG SAN LEARNERS IN A COMBINED SCHOOL IN PLATFONTEIN, NORTHERN CAPE

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DECLARATION

I, Mercedes Beryl Fredericks declare that this research report is my own work. It is being submitted for the degree of Master of Public Health at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

M.B. Fredericks (Mrs)

9 May 2012

DEDICATION

This is in memory of my mother, Chrina Florence Makhene, a definition of prosperity and goodwill. Your moulding and generosity of spirit has been brought to life in my endeavours.

To my husband, Alfonso Mark Fredericks, without whose support, patience and ever-enduring encouragement throughout this most taxing period, I may not have survived. Your words ‘one step at a time brings the end closer’ have brought me to the end of this particular road. My sincerest gratitude to you for surviving with a ‘mature and crazy student’.

To my brother, Clive McKenzie, my sisters, Brenda James and Geraldine Pietersen, you have encouraged me to take the journey and have always provided a shoulder to cry on. I thank you.

To my children, Ashley, Jason and Lucian, I hope and trust that this achievement will serve as encouragement to you.

ABSTRACT

Background

Prevention of Human immunodeficiency virus (HIV) in South Africa includes early detection and treatment of sexually transmitted infections (STIs), as well as health promotion activities. The latter include health education programmes and the promotion of screening activities such as voluntary counselling and testing (VCT). The South African government recognises the need for creating equity for access to health care services. The 1997 White Paper for the Transformation of the Health System, stipulates one of the aims of health Policy in the new South Africa as 'promoting equity by developing a single, unified health system'. This commitment is inclusive of the Platfontein community which comprises the two largest San-groups in South Africa: the !Xun and the Khwe who were settled on the Platfontein farm at the end of 2004. There are 3500 !Xun and 1100 Khwe currently living in the Platfontein community. A health facility, compliant with the principles of Primary Health Care (PHC), was built on the farm to render services to the Khwe and !Xun communities who were not recognised as a distinct cultural group during the Apartheid era in South Africa. For the young people in the community it was the first time they could access the formal schooling and health system in South Africa.

The objective of this study was to assess the perceptions, attitudes, behaviour and knowledge levels among the school-going youth of the Platfontein community, about STIs, HIV/AIDS and the health care services that are available to them.

Method

This was a descriptive cross-sectional survey of 201 learners in grades 6 to 12 in the !Xunkwesa Combined School, Platfontein. Data was collected by means of self-administered questionnaires and

entered in Epi-Info version 3.3.2. The choice of a self-administered questionnaire was to strengthen the element of confidentiality and anonymity and reduce bias of questionnaire the administrator and of the researcher. The questionnaires were administered during school hours as this was the only time that all the respondents would be at the same place at any one time.

Validation, coding and checking for completeness of data was done in Excel and the data were analysed in Stata version 10. Comparison of categorical variables was done using chi-square test reported with 95% confidence levels to determine significant difference between the variables, p-value <0.05 was regarded as significant. The school children were stratified into lower and higher grades (6 – 9 and 10 – 12, respectively). Comparisons were also made between girls and boys, and different age groups.

Results

The perceptions of risk for contraction an STI and HIV was low among the learners who were in the lower grades of school. In this study 53% of the male learners considered themselves to be more at risk of contracting STI and HIV compared to 47% of the female learners' perceptions of their risk. More boys (55%) considered being tested for HIV compared to 45% of girls. Generally, knowledge about STIs was higher (70%) than knowledge about HIV and AIDS (12%). Twenty eight percent of the learners had knowledge about the local PHC services and 45% expressed preference for exclusive utilisation of traditional health care system. Knowledge about sexual and reproductive health issues among both boys and girls was similar (43%; n=86). Forty three percent of learners in school expressed higher levels of having gained Sexual and Reproductive Health (SRH) knowledge at school compared to their older classmates. Twenty seven percent of all learners were not sure where they had gained SRH knowledge.

Conclusions

The study showed that the knowledge about HIV and AIDS were very low, as was that of the risk of being infected with HIV. Younger learners who had entered the school programme at an earlier age (prescribed school going age of 7years), were more knowledgeable than learners who had started school at a later age, about sexual and reproductive health issues and gained that knowledge at school. There was a low level of knowledge of the PHC services which might indicate poor collaboration and/or integration between the traditional and primary health care services in the !Xun and the Khwe community. The current Life Skills Education programmes at the school with the variety of ages should be considered and special arrangements made to accommodate older learners. Closer collaboration between traditional and PHC services should be encouraged, with platforms for collaboration being created by both the Department of Health and Department of Education. Integration of services should be an important consideration with the encouragement of referral between health care providers. Programme planning for the community should be done collaboratively by the traditional healers, health care providers and the Department of Education, as well as sharing of knowledge and training opportunities.

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Permission was granted by the Northern Cape Department of Education District manager for Frances Baard District, for the study to be conducted at the! Xunkhwesa Combined School.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

The explanation given in literature of the South African San Institute (SASI), of the word ‘San’ is that it implies people who gather wild food and have no cattle. SASI further defines the term as being usually applied to the indigenous people of Southern Africa who used to live from hunting and gathering and are descendants of the aboriginal population of the subcontinent.

The history of the San people of Southern Africa is described by Robins, Madzudzo and Brenzinger (2001) as being one where they have experienced colonial violence, ethnocide and dispossession which have pushed them into increasingly dry and marginal lands. By the beginning of the 20th century the remaining San in South Africa were to be found in the drought-prone areas of the Northern Cape. Consequently, today there are only a dozen known speakers of original San languages throughout South Africa (Robins, et al. 2001)

The two largest San groups in South Africa are immigrants from Angola via Namibia.
The South African Department of Environmental Affairs and Tourism describes these groups as having been recruited by the previous South African Defence Force (SADF) to be used as trackers in the in the SADF areas of operation in Namibia and Angola. Often families followed the men that were sometimes forcefully recruited. When Namibia became independent these families were settled in a tent town in Schmidtsdrift in the Northern Cape near Kimberley.

At the beginning of the democratic government these families were moved to Platfontein after a judgement that the land in Schmidtsdrift belonged to the Tswana group who had been forcefully removed decades ago. These are the !Xun and the Khwe who are now settled on their land, the 12500 acre Platfontein farm since the end of 2004 (SASI, 2002).

Platfontein is approximately 15 km outside the Northern Cape provincial capital, Kimberley. There are 3500 !Xun and 1100 Khwe. Both groups claim an indigenous identity on the basis of their languages and cultures. In addition to speaking their own indigenous language, they have mastered Afrikaans, a local South African language. They were recognised for the first time as a distinct cultural group and as a people with constitutional, political and human rights in post-apartheid South Africa (Robins, et al. 2001), following the democratic elections of South Africa in 1994.

The Restructuring and Development Programme (RDP) was to have a bearing on the development of the Platfontein community as well as with other South Africans and included aspects of housing, water, sanitation and health. A health facility which is compliant with the PHC principles, was built on the farm to render services to the Khwe and !Xun communities who have been resettled on the Platfontein farm. Part of the development for the San community was the establishment of a combined school situated in the centre for access by both groups. For some of the young people within the community it was their introduction to the South African formal schooling system.

1.2 STATEMENT OF PROBLEM

Panchaud, Singh, Feivelsonand Darroch. (2000) states that Sexually Transmitted Diseases (STDs) are responsible for a variety of health problems and can have serious consequences for adolescents and young adults. The control of levels of STDs would be a step towards improving policies and

controlling incidences of STDs in a country. Norris (2003) has identified that young people are a vulnerable group in South Africa because of the risk behaviours and risk conditions that threaten the survival, well-being and future health of young people. The terms STIs and STDs are used interchangeably in this report. Despite there of there being a lack of literature on health care among the SAN communities, and even less focussing on the adolescents and young people in these communities, in this report it is acknowledged that the adolescents and young people in the SAN communities are a vulnerable group in South Africa.

1.3 JUSTIFICATION

Information on HIV/AIDS incidence and prevalence rates and health care utilisation patterns for the San communities is not available. Various studies on sexual practices and knowledge have been carried out in South Africa, but none among the San population. Various studies on sexual and reproductive issues for youth have been done, including that related to street youth. An example is the case of a study among the street youth in Indonesia by Augustina Situmorang for the Asia Research Institute. All the studies conducted in South Africa for adolescents and young people have not included the San population, although they have the same needs as other young persons who live in South Africa and to whom the Health, Social Development and Education Systems are also applicable.

1.4 LITERATURE REVIEW

1.4.1 International Perspective

Throughout the world, including Africa, health measures are aimed at avoiding any further spread of HIV with the main focus being on preventative measures (Clumneck, Carael and Van de Perre,

1990). Prevention includes early detection and treatment of Sexually Transmitted Infections (STIs), health promotion activities that include health education programmes and the promotion of screening activities such as voluntary testing and counselling (VCT). A STI is an indicator of recent unprotected sexual intercourse and has a number of negative health outcomes (Pettifor, Rees, Steffenson, Hlongwa-Mdikizela, Machphail, Vermaak and Kleinschmidt (2004)) one of which could be the exposure to HIV. International commitments by various countries and global committees to containing and curbing the scourge of HIV have been made on numerous platforms. Examples of such would be the development of the Millennium Development Goals which go beyond the management of HIV and the different reports by UNAIDS and UNFPA.

A report by UNAIDS (2006) on the progress since the declaration of commitment on HIV/AIDS in 2001 indicates that despite the risk of untreated STIs and the transmission of HIV infection, prevention programmes still reach only a small minority of those in need in developing countries and that the rates of STIs remain high and treatment rates are low. A UNFPA report by Njue, RHIYA initiative, Situmorang and Norris, reported that young people have shown a unique vulnerability to social conditions and changes that have occurred over the past three decades. From the same report, recommendations for Kenya, Vietnam, Indonesia, South Africa and Malawi were that health services for youth should be specifically geared towards addressing the needs of youth as a special group of the population.

In the USA approximately three million cases of STI occur among teenagers and approximately one million become pregnant (CDC, 2001) and HIV infection is the sixth leading cause of death among young persons aged fifteen to twenty-four years in the United States.

A report by the Guttmacher Institute on sixteen developed countries acknowledges that Sexually Transmitted Infections are under-reported and not diagnosed and that the statistics represent only a fraction of the actual STI problem in the countries that were included in the study. Panchaud, *et al*. (2000) speculates that under-reporting among teenagers may even be higher than in the general population. Adolescents have greater difficulty accessing STI services because of the stigma associated with STIs. Panchaud, et al (2000) further states that they are more likely to have multiple partners, to have unprotected sex and to have high-risk partners and may have poorer access to information.

Maharaj, (2006) illustrates the differences between male and female adolescents in terms of power relations, with females being less likely to negotiate sex and condom use than their male counterparts. Female adolescents are less likely to report condom use than males of similar age. Males are more likely to seek medical assistance at an earlier stage of the infection as symptoms are more evident in males than in females. In contrast to this, both males and females who considered themselves as having any risk of contracting HIV were less likely to report condom use if compared to their counterparts who thought they were not at any risk (Maharaj, 2006).

Maharaj (2006) reported that research in other African settings has documented an increase in condom use among individuals who had multiple sexual partners. A study in Zimbabwe found also found that condom use increased with the number of partners. The study further found that the duration of the relationship determined if condoms were being used, with more long term relationship leading to a lower likelihood of using condoms. Another study found that women in the USA were more likely to use dual methods if they perceived themselves to be at risk (Maharaj, 2006).

The incidence of Sexually Transmitted Diseases has reportedly been higher among females than males (Panchaud, *et al*, 2000), but this could be attributed to the existing reproductive health services that are mainly targeting females. Females who are in relationships with older males who are more likely to have been infected with STIs and HIV than their younger counterparts, are at higher risk (Panchaud, *et al*, 2000).

The studies done in developed countries indicate that there is little difference in the number and ages of adolescents who are sexually active. There is however a difference in the knowledge levels about STIs and HIV that is evident in the reported condom use and the number of sexual partners. Sexuality is a normal part of human development. This requires that part of personal health be that of Sexual and Reproductive health. This means that Health Systems should incorporate aspects of Sexual and Reproductive health in the service package. Studies conducted by the Allan Guttmacher Institute identified gaps in sexual and reproductive service provision from information gathered from fifty-two organisations. The gaps included lack of sexual and reproductive health service provision for marginalised groups, the low levels of sexual health education in schools and the lack of policy and mandated guidelines to support education in sexual and reproductive health in schools.

The argument given by Wellings, et al (2006) strengthens the suggestion of having a strong Sexual and Reproductive Health education and Service package, because the age and nature of an individuals' sexual debut strongly influences sexual behaviour in future. Research is thus pertinent to exploring and defining the needs of the younger population and strengthening of Health Care Systems in countries. Despite this need, Wellings, et al (2006) further states that research has been more focussed on Asian populations with African countries being given disproportionate attention, thus the evidence is partial, but the need for public health to address the determinants of sexual behaviour remains unchanged. Conceição Chagas de Almeia, Aquis (2009) states that gender

differences and the cultural context in which young people live, significantly shapes their educational and reproductive trajectories. It follows that policy must define and develop strategies that provide young people with adequate information and tools to make informed decisions about their own reproductive health (de Almeia, *et al.* 2009).

The need for integration of health care services has been recognised for a long time, but research indicated that 'instead there is growing evidence that inter-professional boundaries, separate accountability structures and a lack of common goals, all act as intra-organisational barriers to partnership working' (Wills, *et* al.2007). The general agreement of participants in a workshop on Partnership Working was that there should be a sharing of information, resources and the responsibility for public health (Wills, *et al*. 2007) between the health care providers from different organisations. Despite the benefits identified by the workshop participants, there was a reluctance to commit to a way forward as the general feeling was that there was no workable strategy for Partnership working.

1.4.2 The South African Perspective

The existence of national STI and HIV/AIDS programmes and international commitment to the millennium goals does not necessarily mean that all inhabitants of South Africa have equal access to these services. Studies conducted in Kwa-Zulu Natal to determine condom use among young people and the reasons for the use thereof, indicated that the perception of HIV and STI risk among young people of both sexes was low and not perceived as related to condom usage (Maharaj, 2006). The study however has its limitations in that it is based on a single South African province in which none of the San population was included. Health service utilisation patterns are varied and may be associated with perceived illness or health need, socio-demographic factors such as age, gender,

level of education, family size and occupation, geographical proximity, income, cost of care, level of its provision and its distribution. The influencing factors in health care for the Platfontein adolescents may be similar, but this is not documented.

In the study conducted by Maharaj (2006) among young people in Kwa Zulu Natal the results indicated that the median age for sexual debut is 16 years with more than half of the respondents perceiving themselves to be at risk of acquiring HIV. The protection method of choice is reportedly the condom for both disease and pregnancy prevention. Interestingly most of the respondents knew where to access condoms from their local health facilities. Maharaj (2006) speculates that low condom use in relation to perception of risk of contracting HIV may be ascribed to perceived low levels of control of risk or the availability of anti-retroviral medication. When comparing these results with similar studies conducted in other communities, the opposite is true with higher risk perceptions linked to higher reported and actual condom use. The recommendations from this study included that the risks of HIV and pregnancy be communicated more creatively.

Although similar studies as the one discussed above have not been conducted among the young people in the San community, SASI has done some surveys and the summaries are reported in their annual review. The annual review done by the South African San Institute (SASI, 2002) found that ‘most San youth have low self-esteem that results in a lack of vision and in exposure to high levels of violence and substance abuse. In addition, low self-esteem results in the youth undervaluing cultural identity’ (SASI, 2002). The recommendations from a summit for youth meetings included key resolutions to ensure the prevention of crime and rape, among other identified needs (SASI, 2002). Although health needs have not been identified in isolation, government recognised the need for the accessing of health care services.

The South African governments' recognition for the creation of equity in access to health care service is clear in the commitment to providing guidelines for both its citizens and the public sector service providers in South African Bill of Rights. In the 1997 White Paper of the transformation of the Health system it is written that one of the aims of Health policy in the new South Africa is 'promoting equity by developing a single, unified health system'.

'For centuries South Africans have been cared for by herbalists. These skilled practitioners had by observation and analysis identified plants with therapeutic properties' (Katzenellenbogen, Joubert and Karim, 1997). It is thus acknowledged that the study of health practices is necessary. Research of indigenous knowledge in indigenous medicine and pharmacology acknowledges that this field encompasses human health and indigenous medicine; maternal and child health; and sexual health and disease, among other health related subjects. A suggestion for future research in traditional medicine has been made, but reports are not available for the San communities (SASI, 2002).

Hassim, Heywood and Berger, (2007) further expands on the need for policy in terms of integration of public and private health care systems, including that of Non Profit Organisations (NPOs) and Traditional Healers. The integration should not be for the purpose of confirming one system to be superior to another, but to ensure that health care is better coordinated and that all health care providers are trained and provided with the necessary tools to contribute to the health of all South African citizens. Both the service provider and the health care client are thus protected within government policy structures. The indirect benefits of having a national policy on the integration of health care services is that access and availability are greatly improved, thus ensuring greater equity between urban and rural people who access both public and private health care services (Hassim, *et al.*).

The prevalence of HIV/AIDS and Sexually Transmitted Infections (STIs) among young people suggests that this vulnerability is closely associated with disease and risk-taking behaviour among the South African youth (Norris, 2003). In an effort to make health education and health services more accessible to the youth, the South African Department of Health has introduced the National Adolescent Friendly Clinic Initiative (NAFCI) with the assistance of loveLife and the Reproductive Research Unit, to Primary Health Care (PHC) clinics throughout South Africa. Presently 400 PHC clinics have introduced the NAFCI principles of ensuring that the youth are availed of youth-friendly services.

Research on the behaviour of young people with regard to exposing themselves to HIV is varied and results show that young people may have sexual experiences from as early as13 years for males and 15 years for females among rural youth; and 14 years for males and 16 years for females among urban youth (National Department of Health, 2003). A National Youth Survey by loveLife in 2000 reported that 31 Percent of seventeen year olds that were sexually active, had had their first sexual experience before the age of fourteen. These results are in line with the results of the Demographic and Health Survey published by HRSC in 2004 that suggests that 3% of all South African youth have had sex by the time that they are fourteen years old (National Department of Health, 2003). Results from women attending antenatal clinic services suggest a 16% HIV prevalence and a 4% Syphilis rate among teenage females (Norris, 2003). These results can be associated with sexual risk behaviour, though the risk of under-reporting remains very real. Risky sexual behaviour can be measured by the self-reported condom usage among the youth under study. Condom distribution is an important aspect of the South African Department of Health prevention strategies and although not aimed at the youth primarily, access to youth is not restricted.

1.4.3 The Youth Risk Behaviour Survey in South Africa

The National Youth Risk Behaviour Survey (NYRBS) has been conducted twice by the Medical Research Council on behalf of the National Department of Health of South Africa. The first survey having being done in 2003 and the second one in 2008. These surveys investigate all risk behaviours related to the young people of South Africa and includes respondents from all nine provinces in the country. Risk behaviour that is assessed included habits that impact on health, like hand washing, geographical location, sexual knowledge and behaviour, use of drugs and alcohol and various other aspects that influence the risk profile of a young person.

The results of the YRBS by the South African National Department of Health (2003) show that among 15-24-year-olds, 57.1% of men and 46.1% of women reported using a condom at last sexual intercourse. The study further revealed that the use of condoms can be predicted depending on the gender of the respondent. More male s reported condom use than females. This is consistent with the results of the second YRBS (2010) which highlights the lack of consistent and correct use of condoms among youth that are sexually active, although there is a move towards safer sexual practices.

This varies slightly with the results of the YRBS done by CDC in the United States over the period 2001-2009, where sexual preferences were also taken into account. In the CDC study it was however found that condom use among males who have sex males was higher, as with males that had sex with the opposite sex. This did however not hold true for males who had sex with both males and females. In addition to the above the results of the survey done in South Africa (SA National Department of Health, 2003) further indicated that by the age of 19 years at least 1 in 3 of all teenagers have been pregnant or had a child. Also, 11% of termination of pregnancies was by

women under 18 years old. The need for targeted sexual and reproductive education and provision of health services for the young people in South Africa becomes imperative. The attempts to make this possible have reportedly not been consistent in both schools and health facilities (SA National Department of Health, 2003).

The results of the National Youth Risk Survey (NYRBS) done in 2008 states that based on the premise that a 17 year old learner in grad 8 and a 20 year old learner in grade 11 are too old for the respective grades by 3 or more years, findings showed that 12% of the sampled learners were “too old for their grade” if the premise is applied as used in the NYRBS (2010). The findings of the survey done at !Xunkwesa Combined School, although the reasons may differ slightly. Among the reasons for being “too old for their grade” for the young people in Platfontein, is that exposure to the formal schooling system occurred at a late stage of their lives and only happened with the relocation to Platfontein. Prior to this, education was informal, self-discovery and from the traditional leaders and parents within the community.

The National HIV and Syphilis Prevalence Survey South Africa 2005 indicated that there is a steady decline in the HIV/AIDS and Syphilis prevalence among women younger than twenty years of age. The lowest rates were measured among this age group as well. The limitation of the survey however is that the young women included in the study were sampled from the antenatal clinics at public health facilities, and includes young women who are not pregnant, as well as young pregnant women, but utilise private health facilities. Although there is a notable drop reported in the Syphilis prevalence among younger women from 2005 to 2008, this remains the highest in the country as reported in the 2008 National Antenatal Sentinel HIV and Syphilis Prevalence Survey.

1.5 OVERALL AIM

The study is to assess the perceptions, attitude, behaviour and knowledge levels about STIs, HIV/AIDS and the STI health care services that are available to the school going young people of Platfontein (San community) who are attending school in June 2007.

1.6 SPECIFIC OBJECTIVES

1. To determine socio-demographic characteristics of school going young people on grades 6 to 12 at the !Xunkwesa Combined School at the time of the study.
2. To assess the knowledge levels of school going young people in school grades 6 to 12 at the !Xunkwesa Combined School in Platfontein regarding STIs, HIV and AIDS
3. To assess the levels of Sexual and Reproductive Health Education at school
4. To assess the perceptions of school going young people in the San community about their own risk to contracting STIs and HIV.
5. To assess the perceptions about the influence of alcohol and drugs on sexual behaviour among young people in Platfontein.
6. To assess the knowledge about and utilisation patterns of PHC services among school going young people in the San community in Platfontein

CHAPTER TWO

This Chapter describes the methodology used in this study. The design of the study is highlighted and data collection procedures articulated. In addition data management as well as data analysis have been outlined.

2.1 STUDY DESIGN

The study is a descriptive and analytical cross-sectional study of self-reported knowledge levels, attitude, perceptions and behaviour of learners at the Platfontein !Xunkwesa Combined School in Platfontein. The study was conducted in July 2007 at the school in Platfontein.

2.2 STUDY SITE

The !Xunkwesa Combined school is the only school at the Platfontein farm which is situated approximately 15 Km from Kimberley and about 25 Km from Barkly West in the Northern Cape. The school has been built in the middle of the two communities so that both the !Xun and Khwe would be able to access it. The community was settled on either side of the !Xunkhwesa combined school and the local radio station, which is hosted by the South African Broadcasting Corporation (SABC). The Primary Health Care clinic is also located centrally.
The central location of services has ensured accessibility for all members of both communities.

The school principal and teachers originate from Kimberley and are fully accepted by the Traditional Leaders and the community at large as one of the education authorities for the community. The language of instruction at the school is Afrikaans and instruction and learning for school grades one through to grade twelve is provided at the school. The curriculum at the school is in line with that of

the South African Department of Basic Education and includes Life Skills which is part of the Life Orientation curriculum in school. All grades, as prescribed by the Department of Education are being instructed in Life Skills in line with the prescribed curricula in each grade.

2.2 STUDY POPULATION

The study was conducted at the !Xunkwesa Combined School in Platfontein where all learners are of the San community, being either !Xun or Khwe. The local languages for each community is different from the other, but all education and formal learning in school is done in Afrikaans as the medium of instruction. All learners understand and speak Afrikaans with limited use of English, be it written or spoken.

The study comprised both male and female learners. The ages of learners in grades 6 to 12 range from twelve to twenty years and older who attend school at the !Xunkwesa Combined School from 07h30 to 14h00, in a normal school day of the school calendar year. The formal schooling system has not always been available to the community and thus has led to learners being older than conventionally expected, for the grades that they are in. Sensitivity to the community's perceptions of preferential treatment, all learners that were in grades 6 to 12 that wanted to participate were included, irrespective of age. This meant that learners older than 18 years of age were also included in the study. The ages of the participants were thus grouped as follows 12 – 14years; 15 – 17years; 18-20 years and 21 years and older.

The school had about one thousand learners at the time of the study. The study consisted of 201 learners who were available for the survey on the day that the questionnaires were administered.

2.3 SAMPLING AND SAMPLE SIZE

The sampling method used was simple random sampling in the only school in the community. The learners included in the study were from grades 6 to 12 aged twelve to twenty years and older. All the learners included in the study consented to voluntarily participate in the study. The sample size for this study was 201 learners from the !Xunkwesa Combined School. The sample size was determined by estimating the level of expected knowledge on STIs, HIV/AIDS and STI health care service availability at 50%, with an error margin of 5%.

2.4 EXCLUSION CRITERIA

All learners who were in the grades lower than 6 and younger than twelve years old in the !Xunkwesa Combined School were excluded from the study. The Life skills curriculum for young people in grades lower than grade six had not been given life skills education that included sexual and reproductive health issues and would not be able to relate to the contents of the questionnaire that was administered. Furthermore, young people who did not want to participate in the study and were absent from school on the day, were excluded from the survey.

2.5 DATA COLLECTION

The questionnaires and a sealable envelope were distributed by the researcher to each learner. All the participants came to the school hall, where the desks were lined up so that no other participant could see what the other was writing on his or her questionnaire, in classroom style setting. Each grade was accompanied by a class teacher to the venue. The researcher and one of the school teachers were

present throughout the process. Before learners started completing the questionnaire, the researcher explained that the completed questionnaire had to be placed in the sealable envelope and sealed before placing it in the clearly marked box near the exit of the hall.

No time constraints were placed on learners for completion of the questionnaire, although it took approximately and hour for learners to complete the questionnaire during the pilot study. During the study most of the learners completed the questionnaire within an hour. Questionnaire boxes were placed at designated places near the exit so that participants could drop the sealed envelope into the box as they were leaving the hall, and after completing the questionnaire.

2.6 MEASUREMENT

The Data collection tools used were self-administered questionnaires (Annexure E). A self-administered questionnaire was used to limit researcher bias, as well as limit the influence a questionnaire administrator may have had on the answers given by the respondents. The self-administered questionnaire was considered to strengthen the anonymity and confidentiality of information given by the respondents.

The questionnaire provided demographic details and questions related to knowledge, attitudes, perceptions and behaviour about STIs, HIV/AIDS and health care service availability for the target group. Other questions were related to the used of the services of Traditional Healers in relation to the use of the conventional Primary Health Care services provided by the locally based Primary Health Care clinic that is situated within the community.

The Questionnaires were translated into Afrikaans which is the medium of instruction at the !Xunkwesa Combined School in Platfontein. Learners at the school speak and understand two languages namely Afrikaans and !Xun or Khwe. The questions were designed to answer the questions about having knowledge about STI's and HIV ; perceptions of risk for contracting STI's and HIV; who the learners preferred talking to about their sexual and reproductive issues, if they did talk about it at all and the reported utilisation of traditional or PHC health care services among the learners.

2.7 PILOT STUDY

Prior to the implementation of the survey, a pilot study was conducted to test the questionnaire among adolescents who frequently visited the local youth centre (Roodepan Multi-Purpose Centre in Kimberley) after school and who fall within the same age and school grade as the intended study population. The purpose of the pilot study was to test the questionnaire before translation and after translation to ensure that interpretation of questions remained the same after translation into Afrikaans. The questionnaire was not changed after the pilot study.

2.8 DATA PROCESSING AND ANALYSIS METHODS

The information collected was entered and analysed by using the Epi- Info version 3.3.2. The questionnaires were checked for completeness, legibility and for missing values that can be corrected. Completeness was checked at the point of collection. Data was transferred into Excel sheets and the calculation for chi^2 and p values was done in STATA.

The validation, coding and checking for completeness of data was done in Excel and the data were analysed in STATA version 11.

Comparison of categorical variables was done using chi-square test reported with 95% confidence levels to determine significant difference between the variables, p-value <0.05 was regarded as significant. The school children were stratified into lower and higher grades (6 – 9 and 10 – 12, respectively). Comparisons were also made between girls and boys, and different age groups. A descriptive table shows the range, mean age, school grades, sex of participants and their cultural backgrounds. A comparison of levels of differences and was then made. The significant differences in the distribution of these factors were assessed by using chi-square test.

2.9 ETHICAL CONSIDERATIONS

The study was commenced upon approval by the University Of Witwatersrand School Of Public Health Committee and the Ethical committee for Research on Human Subjects (Medical). The Ethics Clearance number is R14/49 Fredericks. Written and official authorisation from the Department of Education and the School Principal was sought before the study commenced. Anonymity of participants was maintained throughout, by the use of a coding system.

Written consent from parents and assent from participants was obtained prior to commencing the study. An information meeting was scheduled with parents of all prospective participants. Provision was made for illiterate parents. Illiterate parents would have individual information sessions with the researcher at which voluntary consent would be obtained. Participants were advised that participation was voluntary, anonymous and about information confidentiality throughout the study. The option for withdrawal by participants at any time during the study, was explained. The results

would be reported to the school (principal, teachers, School Governing Body) and the relevant authorities in the Department of Basic Education.

CHAPTER THREE

RESULTS OF THE STUDY

Chapter three describes the results of the study in table and graphic format. The results reflect the responses given to the questions asked. Some of the information reflected here is additional to that which was intended to be measured. Interesting information about the age distribution over the grades (six to twelve) from which respondents were drawn is reflected hereunder. This was identified as a potential for curriculum design that will address this unique situation that is found in the Platfontein !Xunkwesa Combined School.

3.1 SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Table 1: Age of the Respondents in relation to Sex

Age	Male n (%)	Female n (%)	Total n(%)
12 – 14 years	23 (53)	20 (47)	43 (21)
15 – 17 years	47 (53)	41 (47)	88 (44)
18 – 20 years	32 (59)	22 (41)	54 (27)
≥ 21years	8 (50)	8 (50)	16 (8)
Total	110	91	201

There were 201 learners who participated in the study. Of these 55% (n=110) were males and 45% (n=91) were females. The mean age of the learners was (16,7 years) Standard Deviation (2.8) with a range of 12 to 26. There was no significant difference in the age distribution of the learners by sex ($chi^2 = 0.68$; $p = 0.878$), (Table 1).

Of the 201 learners 68% were of the Khwe ethnic group and 32% were of the !Xun ethnic group. There were more males than females attending school in both ethnic groups. There was a significant difference in the ages of the learners in the different grades. In grade ten the ages ranged from 14 years old to 24 years old. The learners in this study were found to fall within the category of being "too old for their grade" using the premise used in the NYRBS of 2008 which states that a 17 year old learner in grade 8 and a 20 year old learner in grade 11 are too old for their respective grades by 3 years or more.

3.2 SECTION B: HIV AND STI KNOWLEDGE

The responses for the questions related to signs and symptoms of STI's, having knowledge about HIV and prevention of STI's and HIV are reflected in the graphs below.

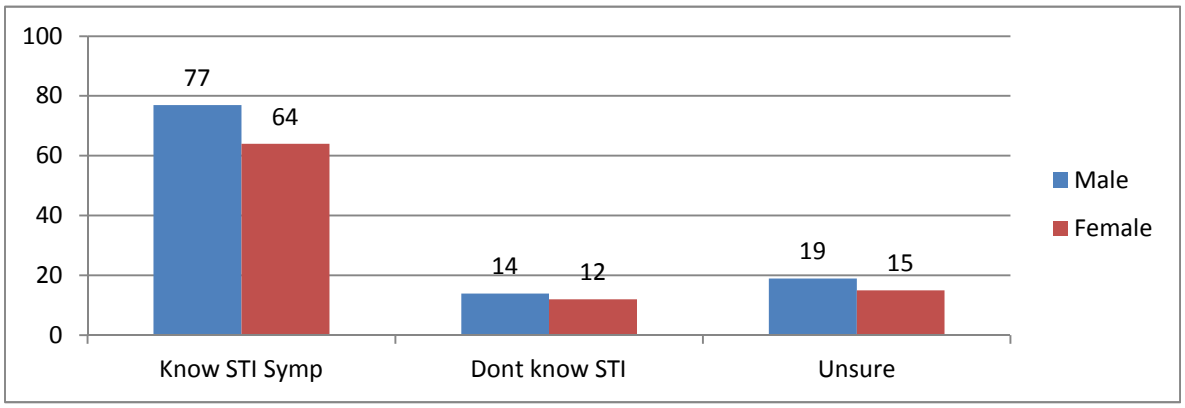

Figure 1: Knowledge of STI signs and symptoms

Seventy percent (n=141) of the respondents indicated that they know the signs and symptoms of STIs while 16% were unsure and 13% did not know the symptoms of STIs (Figure 1). Questions eight to thirteen answered to the signs and symptoms of STI's.

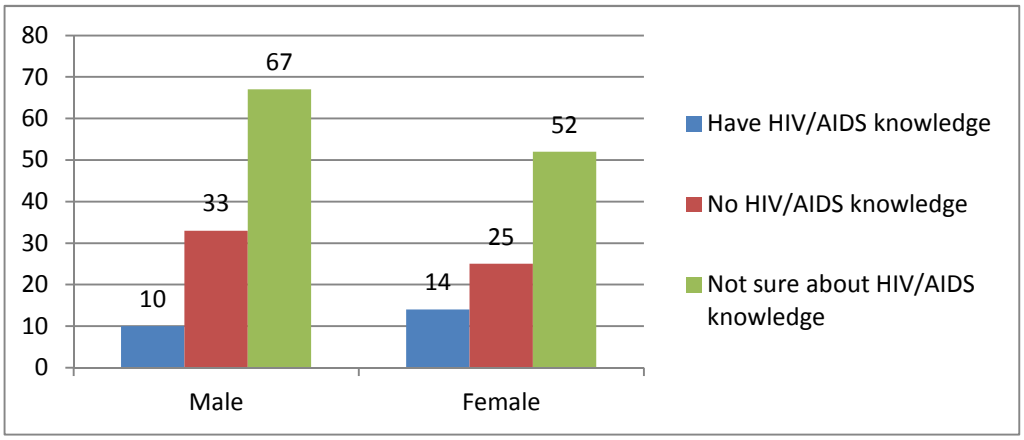

Figure 2: Knowledge of HIV/AIDS among respondents

Twelve Percent (n = 24) of the respondents have any knowledge about HIV while 88% (n = 177) of the respondents have no knowledge, or are not sure of the knowledge they do have (Figure2). The responses indicated that the knowledge of STI's among the respondents was higher than their knowledge of HIV. Fifty Percent (n =100) of the respondents knew that condoms are used to prevent being infected with STIs and HIV, while 36% (n=72) of the respondents indicated that condoms alone did not prevent the spread of STIs and HIV.

Sixty-nine percent (n=138) of the respondents indicate that they know that abstaining from sexual activity prevents the acquisition and spread of STIs and HIV. Of these 54% (n=75) are males and 46% (n=63) females (figure 2).

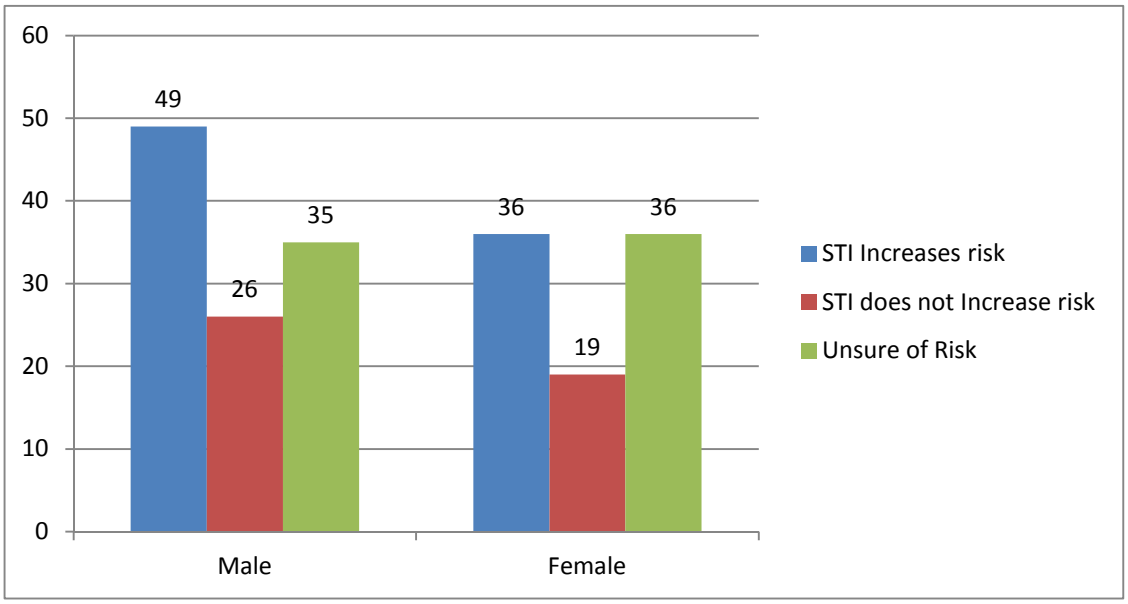

Figure 3: Knowledge that STI's increase the risk of HIV/AIDS infection

Forty-two percent (n=85) respondents knew that STIs increased the risk of HIV infection (figure 3).

3.3 SECTION C: AWARENESS OF SEXUAL AND REPRODUCTIVE EDUCATION

Table 2: Sexual and Reproductive Health Education at school

Sex	SRH at school n(%)	No SRH at school n(%)	Unsure n(%)	Grand Total n(%)
Male	48 (44)	31 (28)	31 (28)	110
Female	39 (43)	29 (32)	23 (25)	91
Grand Total	87 (43)	60 (30)	54 (27)	201

Forty-three percent (n = 87) respondents indicated that they had been exposed to Sexual and Reproductive Health education (SRH) in school while 27% (n=54) were not sure where they had accessed SRH information and 30% (n=60) of the respondents indicated that they had not received

any SRH education in school (chi² 0.39, p=0.823) (Table 2). Questions 19 and 20 of the questionnaire answered the question about SRH education received at school.

3.4 SECTION D: PERCEPTION OF OWN RISK

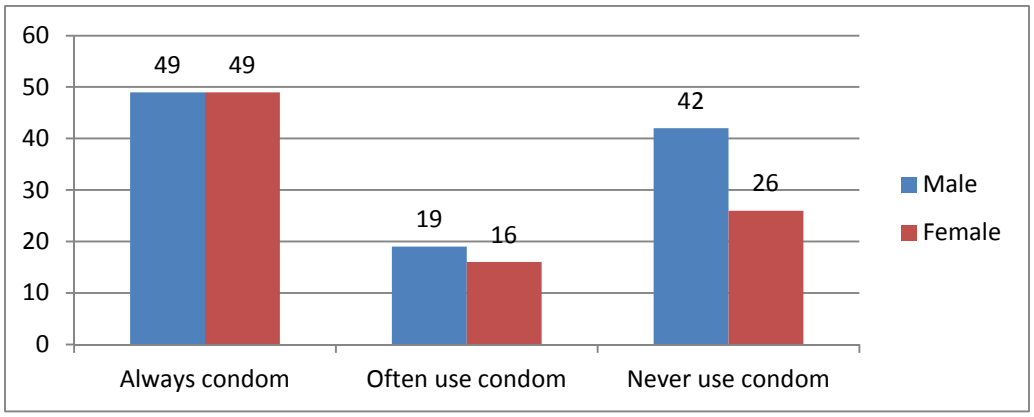

Figure 4: Knowledge on the use of condoms to prevent HIV infection

A higher percentage of females (54%) indicated that condoms had to be used each time that sexual intercourse occurred, while 34% (n=68) indicated that it was not necessary to use a condom to prevent STI's or HIV transmission (figure 4).

i) *Importance of HIV Voluntary Counseling and Testing*

Table 3: Necessity of Voluntary Testing and Counselling

Sex	VCT Important n(%)	VCT not Important n(%)	Unsure of value n(%)	Grand Total n(%)
Male	67 (55)	16 (39)	27 (71)	110 (55)
Female	55 (45)	25 (61)	11 (29)	91 (45)
Grand Total	122 (61)	41 (20)	38 (19)	201

There was a significant difference between males and females in relating the importance of VCT ($chi^2 = 8.169$; Pr = 0.017) with more males than females viewing VCT as an important component in HIV prevention (Table 3).

ii) *Perception of Own Risk of Contracting STI*

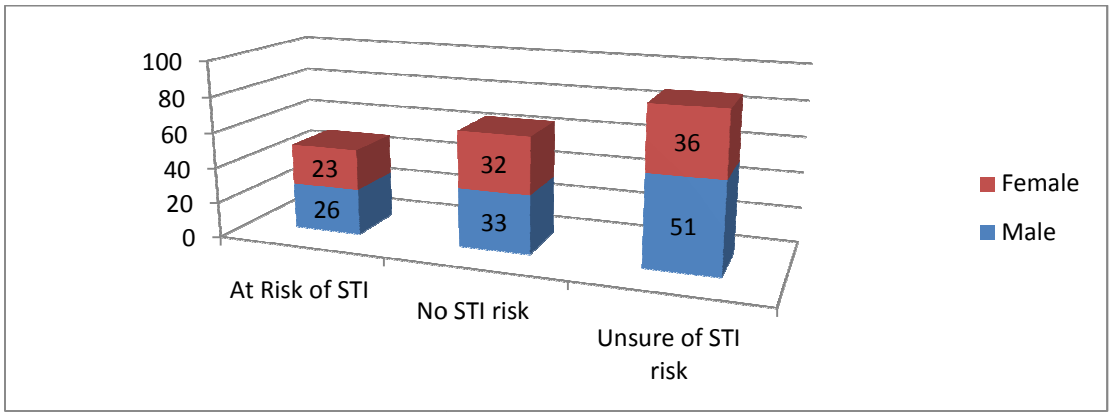

Figure 5: Perception of own risk of STI.

Most respondents (43%) were not sure if they were at risk of contracting an STI. Thirty-two percent (n=65) of the respondents did not think that they were at risk of contracting an STI, while 24% considered themselves at risk of contracting an STI (figure 5).

iii) *Risk of Contracting HIV*

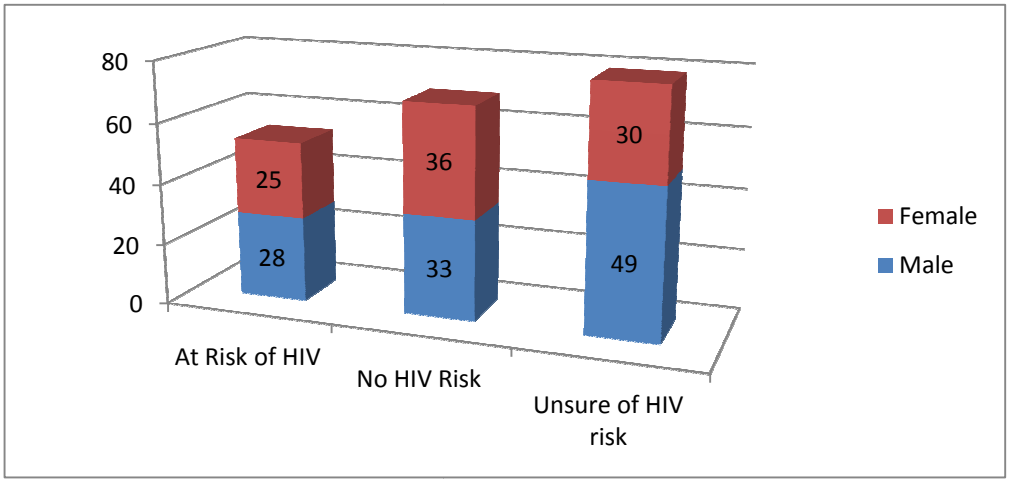

Figure 6: Perception of own risk of contracting HIV.

Twenty-six percent (n = 52) of the respondents thought that they were at risk of contracting HIV, while 39% (n=79) were not sure of the risk of contracting HIV (figure 6).

3.5 SECTION E: SEXUAL BEHAVIOUR WITH THE USE OF ALCOHOL AND DRUGS

i) The Effect of Alcohol and drugs on Sexual Behaviour

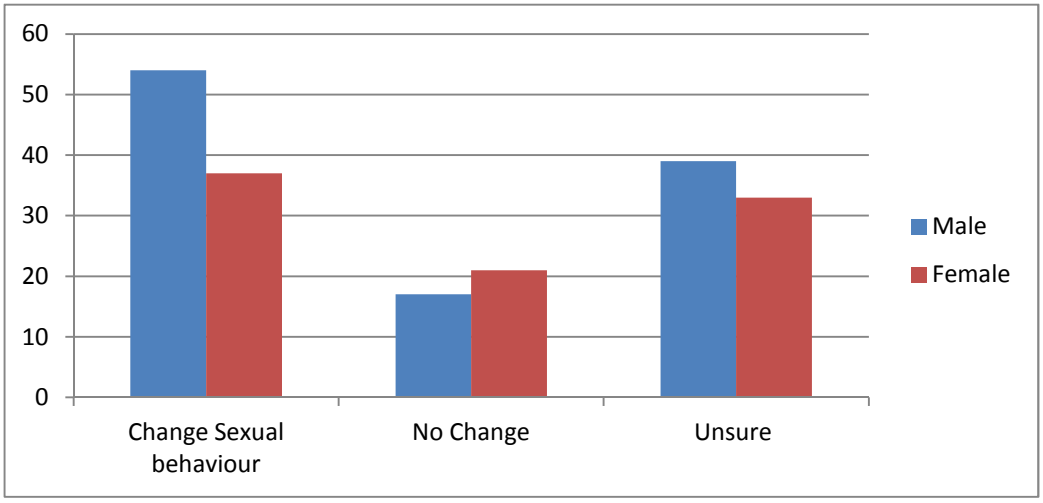

Figure 7: Perceptions of alcohol and drugs on sexual behaviour

Forty-five Percent (45%) of the respondents indicated that drugs and alcohol influences sexual behaviour of individuals thereby putting such individuals at an increased risk for acquiring STI and/or HIV (figure 7).

3.6 SECTION E: RESPONDENT UTILISATION OF HEALTH SERVICES

i) Utilisation of Both Primary Health Care and Traditional Health Services

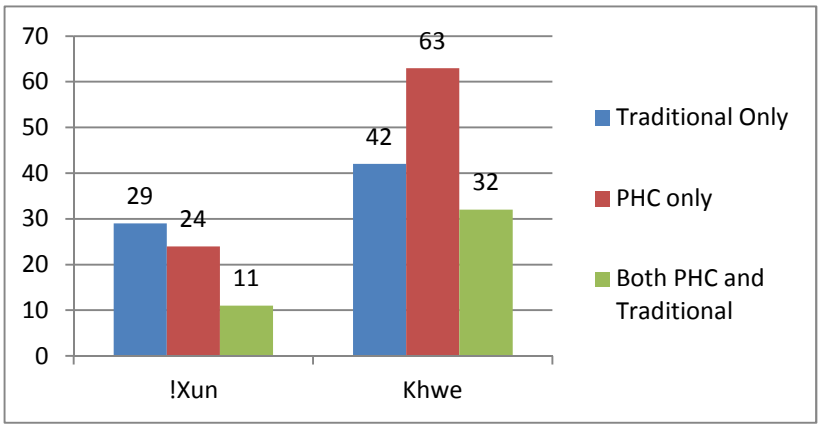

Figure 8: Preference of utilisation of health care services.

There were 35% (n=71) of the respondents that indicated that they use the services of the local traditional healer exclusively. Sixty-five percent (n =130) of respondents utilise the PHC services of which this includes a 33% portion of the respondents who used Traditional Healer services as well (figure 8).

ii) Cost of Services

Twenty-eight Percent (n=57) of the respondents thought that there was a fee payable when accessing PHC services, while 43% (n=86) knew that no fee was payable for PHC services.

iii) Availability of Services

Table 4: knowledge of PHC services that are locally available

Sex	PHC available n (%)	Not available n (%)	Unsure n (%)	Grand Total n (%)
Male	46 (42)	18 (16)	46 (42)	110
Female	36 (40)	19 (20)	36 (40)	91
Grand Total	82 (41)	37 (18)	82 (41)	201

Forty-one Percent (n=82) of the respondents were aware of the PHC services within the community, while 59% (n=119) were not aware of the availability of PHC services in the community (chi^2 0.67, p=0.713) (Table 4).

iv) Accessibility: Youth Friendly Services

Forty-five Percent (n=90) of the respondents thought that the local PHC facility was youth friendly, while 20% (n=41) thought that the facility was not youth friendly and 35% (n=70) of the respondents were unsure.

CHAPTER FOUR

DISCUSSION

This chapter discusses the results of the study by focussing on the main objectives of the study and the findings in relation to the objectives. Each of the findings relevant to answering the questions asked in the objective is discussed as well as a short discussion of the limitations, strengths and the implications of the study.

4.1 Summary of main findings

The main objective of the study was to assess the attitudes, perceptions, behaviour and knowledge levels of school-going youth in the !Xun and Khwe communities, about Sexually Transmitted Infections, HIV and AIDS, and the Primary Health Care Service utilisation patterns after having been resettled in the post democratic South Africa. These two San population groups form the largest San group to have settled in one area. The challenges that the youth in a marginalised and poverty stricken community face in terms of health care education and provision were highlighted by the study. The study further highlighted the inappropriate address of the life skills programme for the different age groups within this community as no special arrangements were made to ensure that all school going youth were given age appropriate sexual and reproductive health education. The results of the study are in line with the findings of the study conducted among youth in Kwa-Zulu Natal (Maharaj, 2006) that identified low risk perceptions not related to condom use, and the varied utilisation patterns of PHC services that were not necessarily related to health needs.

Traditions and culture play a very important role in these communities and collaboration between 'modern' medicine and health practices with the traditional medicine and health practices is

important. The need for recognition of the role of the Traditional Healer in the community is clearly indicated by the preference of a health care service provider, where 33% of the respondents indicating a preference for Traditional Healer services, and 32% making use of both traditional and PHC services. There was a low perception of own risk for being infected with HIV in contrast to a higher perception of the risk of contracting a STI. The utilisation of PHC patterns was low with an equal utilisation of the services of the Traditional Healer. A few of the respondents indicated making use of both health care service providers and acknowledge that collaboration between the two service providers is required.

More males than females participated in the study, which is a reflection of the demographics of the school in totality and of both boys and girls in school. Although the Platfontein population constitutes more of the !Xun community, more of the Khwe community considered schooling an important requirement and part of development than did the !Xun community. This was evident in the number of Khwe learners in relation to the number of !Xun learners. The number of learners in the Khwe ethnic group (68%) exceeds the number of learners of the !Xun ethnic group (32%) who have a strong affiliation to their culture and cultural practices. It can further be noted that the number of Khwe learners make up a two-thirds majority (n=137) of the total number of school going young people among both males and females in the school grades from which respondents were drawn (n=201).

There was a significant difference in the age group of the respondents, ranging from twelve to twenty-six years of age. There was no significant difference in the number of the older respondents who were still in school, with an equal number of males and females.

Despite the huge age differences of school attendants at the !Xunkwesa Combined School, the school environment remains the best place at which all school-going young people can be reached in a safe environment for both cultural communities. The school environment is ideal to giving information and where the uniqueness of cultural practices can be discussed in relation to HIV and STI prevention. Throughout the world sexual behaviour is influenced by issues of poverty, employment access, education and migration patterns of populations. The !Xun and Khwe San communities are no differently affected.

4.2 Discussion of main findings

Key messages that are of significance to the young people in South Africa as discussed by Wellings, et al. (2006) indicate that risk reduction messages should recognise diversity and that messaging and education programmes be tailored to individuals and their settings. “Young people should be helped to achieve the best timing for first sex. School-based sex education improves awareness of risk and knowledge of risk reduction strategies, increases self-effectiveness and intention to practice safer sex, and delays rather than hastens the onset of sexual activity.” (Wellings, et al. 2006).

Wellings, et al (2006) states that the age of sexual debut is an issue of public health interest as it may more often than not be non-consensual and possibly unprotected against infections, pregnancy or influence multiple sexual partners later in life. The need for a strong and relevant sexual and reproductive health education, and youth friendly health services programme should be of interest to the governments Public Health Systems in a country.

Singh, et al. (2003) state that 18% of the global burden of disease can be accounted for by the sexual and reproductive health problems. This implies that if policymakers focus on addressing issues that contribute to the reduction of sexual and reproductive health problems, there should be a reduction in a country spending money on addressing sexual and reproductive health problems. Averting sexual and reproductive health problem is mainly focussed in prevention programmes that focus on education and provision of prevention tools like condoms and contraceptives. Singh, et al. (2003) supports her findings by saying that policy makers have to realise that prevention needs continuous efforts and resources and that they should avail resources for both men and women over their reproductive life years.

The exclusion criteria had to be reviewed when the study was commenced. At the advice of the District Department Basic of Education Life skills unit and the Principal of the school the researcher was advised to use grade exclusion rather than age exclusion, based on the nature of the community that was being researched. During the study it became apparent that there were a few older youths in the lower grades and that the definition of age fifteen to eighteen years was an unrealistic expectation. The distribution of the different ages in the different grades varied from twelve to twenty-six years of age in grades 6 to 12 as shown in figure 2.

4.2.1 Age in relation to life skills

The ages of respondents were not as expected, with older respondents often being in the lower grades. This may pose a challenge for a life skills programme at school that is geared towards specific age groups in specific grades. The expectation is that respondents' ages would be in line with that of the general South African population of school-going learners with older youth being in

the higher grades, and not exceeding the age of nineteen years. In this study the researcher found this to be different than expected with older learners often being in lower grades, and having started schooling at a much later stage in their lives. Thirteen percent (n=26) of the respondents were learners in the lower grades, viz. Grade 6 up to grade 9. The distribution among males (n=8) and females (n= 8) was equal with 8% (n=16) of the respondents being over the age of twenty-one years. The education system is geared to teaching specific information in specific grades as suited to the age and grade of the learners. The older learners in the lower grades are thus at a disadvantage in receiving accurate and age-related information. The risk element is increased not only by the limitations on the sexual and reproductive education levels, but also by the likelihood that the older learners would not participate in discussions and debates with younger learners in the same grade.

4.2.2 Knowledge levels of STIs and HIV and AIDS

Knowledge levels among the respondents about STI is high at 70% (n= 177) in contrast to a very low HIV and AIDS knowledge level of 12% (n = 24). The knowledge levels among younger respondents were higher than that of their older counterparts in the same grades. The lack of clarity of the source of information accounts for the uncertainty expressed by the learners when completing questionnaires. This poses a huge challenge for the success of HIV prevention programmes by both the Department of Health, Department of Education and the non-Governmental sector that are mainly targeting youth in school.

4.2.3 Sexual and Reproduction Health Education

The distribution of knowledge levels among both males and females was similar, with the younger respondents expressing higher sexual and reproductive health knowledge as learnt at school. Younger respondents aged twelve to seventeen (43%; n=86), more readily admitted having had Sexual and Reproductive Health Education in school, while the older respondents could not remember having had received the information from school or from elsewhere. A high volume of learners (30%; n= 60) say that they have not had any HIV education at school. In addition to this high percentage is the high number of learners (27%, n= 54) who are unsure of where they learnt about HIV.

Older learners in lower grades are therefore not receiving SRH information that is relevant to their ages and their development. Often the Sexual and Reproductive Health (SRH) Education is not relevant to the recipient learner. This accounts for the low level of admission that SRH education was accessed in school (43%), as well as for the low levels of knowledge among the older respondents about STIs (70%), HIV and AIDS (12%).

4.2.4 Risk perception

The respondents perception of risk was not informed by exposure to sexual intercourse. The knowledge of the increased risk of contracting HIV as a result of being infected with a STI was higher despite the lack of HIV and AIDS knowledge among the respondents. The perceptions of risk of contracting a STI (24%) were in line with the perceptions of risk of being infected with HIV (26%). In both instances males (53%) considered themselves more at risk than female (47%)

respondents. These results are not in line with the results of the HIV-and-Sexual Behaviour among young South Africans that was done by Reproductive Health Research Unit (RHRU) in 2004, where the females (18%) considered themselves more at risk than the males (11%).

Thirty-four percent of the respondents did not consider themselves at risk which was in line with the results of the RHRU study where 36% of the respondents did not consider themselves at risk. This result may be attributed to the number of younger respondents in the study. The results of the survey conducted among Kwa-Zulu Natal youth (Maharaj, 2006) indicated that the low risk perception is not necessarily related to condom use.

The results of the study are in line with 45% of the respondents agreeing that the use of alcohol and drugs increased risky sexual behaviour. In terms of condoms being used to prevent being infected with HIV, the male respondents indicated a higher likelihood of using condoms with females less likely to do so. This result corresponds with the findings of the Youth HIV and Sexual Behaviour Survey of 2004. Similarly the findings of the study are in line with the findings of Guttmacher Institute survey (2004) where young males were more likely to report condom use, negotiation of sex and seek medical help than their female counterparts.

Males (55%) were more likely to consider testing for HIV than their female counterparts (45%), unlike the results of the RHRU survey where females (25%) were more likely to test for HIV than their male counterparts (15%). In both studies the older respondents were inclined to consider HIV testing as an important aspect of prevention of HIV infection.

4.2.5 Utilisation of Primary Health Care Services

Knowledge about the available Primary Health Care Services is low with 28% (n= 56) of the respondents thinking that a fee is payable when accessing PHC services. This may be contributing to the lower utilisation patterns in a poverty stricken community. It could be that health care clients consider keeping money in the community rather than paying for services that are offered from outside of the community. Only 41% of respondents were aware of the locally situated PHC facility.

Forty-five percent of the !Xun respondents preferred the services provided by the Traditional Healer. In contrast to this, 46% of the Khwe respondents preferred utilising the PHC services. There was a group of respondents (21%, n=42) who admitted to utilising both PHC and Traditional Health Care services, despite a low perception of collaboration between the two service providers.

The Primary Health Care Services have not been accepted and are not being utilised to the fullest extent by the learners, albeit for health care other than SRH services. Although a few of the respondents (33%) thought that there was an element of collaboration, the majority of respondents do not agree. Admission of utilisation of the PHC services was low with only 21% admitting to utilising both PHC and Traditional Healer services. It is unclear if this is done in collaboration or as part of seeking an alternative health service on occasion.

4.2.6 Implications of the Study

The findings of the study have implications on implementation and interpretation by policy makers within the Departments of Health and Education at provincial level. On a national level there are policies that are intended to address the Sexual and Reproductive Health issues for youth in and out of school in both government departments. The Platfontein community pose a challenge in that they cannot be considered as youth in the general population and that the traditional value system needs to be incorporated into the way that education and health care are proposed to the community

leaders, for the community members to accept it as part of the norm and make more informed choices in accessing education and health.

4.2.7 Limitations of the Study

When interpreting the results of the study the following limitations should be taken note of:

- Language barrier: the mother tongue of the two communities is !Xun and Khwe respectively. Each of the languages is a unique to each community. The translation of the questionnaire into Afrikaans facilitated the process of conducting the study. The language used is the second language to the respondents of both communities, and is the language taught in school. Interpretation of the questions by respondents may have varied based on the level of their understanding of Afrikaans.
- Researcher bias: the researcher had worked among the community prior to conducting the research study. Her knowledge of the community cultural customs may have influenced the interpretation of the data collected.
- Size of the sample: the study only focused on the school-going section of the community. It is therefore uncertain how representative the results are of the entire community as the majority were not school-goers. A study that includes young people that opt not to attend school will give a more accurate indication of how the youth in the two communities relate to the Sexual and Reproductive Health provided by both Traditional and mainstream health care providers.
- Perceptions of risk for STI and HIV: Measurement bias because the questionnaire did not include a question that asked about sexual debut or about sexual activity to determine if learners had ever had sexual intercourse. The perceptions of risk of exposure to STI's and HIV are thus not informed by exposure to sexual intercourse.

4.2.8 Strengths of the Study

This is the first study to be conducted in this community and population specific age group. The results of this study will inform policy on sexual and reproductive health issues in this population and also act as a stepping ladder for further study to be conducted among this unique and ancient community. Opportunity to review the existing life skills curriculum to address the age appropriateness of sexual and reproductive health among different community groups exists. The importance of the use of traditional medicine and the need for this to be integrated with mainstream medicine is demonstrated although the study cannot be generalised to other cultural groups in South Africa.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The results of the study indicate that there is an intervention required from both the Department of Health and the Department of Education to ensure that the population in Platfontein are exposed to and provided with equitable health care services similar to all South Africans. Younger respondents who had entered the school programme at an earlier age were more knowledgeable about Sexual and Reproductive Health issues and admitted to having gained that knowledge at school. Knowledge levels of HIV/AIDS were very low so was perception of own risk of being infected with the HIV virus.

5.2 Recommendations

In line with the finding of this study review of current life skills programmes at the school with the variety of ages should be taken into consideration and special arrangements made to accommodate the older learner. In addition the following recommendations should be considered:.

- Learners should be increasingly linked with community programmes that deal with Sexual and Reproductive Health Education as it is difficult to teach young people with such a varied age level, despite being in the same school grade. Collaboration with NGOs and CBOs in Kimberley and Platfontein.
- Closer collaboration with community based organisations that deal with youth programmes in Platfontein for out of school programmes where different age groups can be attended to separately.

- Youth-friendly Services training is recommended to the health care providers at the local PHC facility. It is recommended that the local Traditional Healers be included in the training so that they are able to report back to the respective community leaders and ensure that the cultural aspects of both the Khwe and !Xun are considered at all times.
- School health forums to be established that represent both the department of health care providers and the Traditional Healers in the community.
- Strengthening of the marketing efforts to encourage utilisation of the local PHC services. The marketing strategies should be suited to the target community by both the Department of Health and the Department of Education and with the assistance of the local Traditional Healers.

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APPENDIX A: LETTER OF PERMISSION FOR DEPARTMENT OF EDUCATION

P. O. Box 1753
Kimberley
8301
20 January 2007

The Deputy Director (Life-skills)
Department of Education
Private Bag X5048
Kimberley, 8301

Good day Sir/Madam

Re: **Letter of permission to administer a questionnaire at the !Xunkwesa Combined School in Platfontein**

My name is Mercedes Fredericks. I am a Masters student at the School of Public Health, University of Witwatersrand and have to complete a research project as a requirement for the Masters' degree in Public Health. I would like to undertake a survey among the learners in grades 9 - 11 at the !Xunkwesa Combined school to assess the knowledge levels of the Sexually Transmitted Infections (STIs), HIV/AIDS and the health care services available for adolescents in Platfontein.

The study is intended to assess the knowledge of STIs, HIV/AIDS prevention, treatment and knowledge about the available health care services among the learners of Platfontein. The results of the study will be distributed to the Department of Education and to the school. The information that is collected will contribute to strengthening the Life-skills programme in the school by addressing the areas of health and health care knowledge for the Platfontein learners in school grades 9 -11.

The survey will be conducted in a confidential and anonymous manner. No names or any other identifying information of the participants will be used. Participation is voluntary and will follow the attainment of consent from parents and assent from the participants. A Self-administered questionnaire will be administered by me at the school with participating learners in grades 9 to 11.

The research protocol has been approved by the School of Public Health Postgraduate Assessors committee as well as the Committee for Research on Human Subjects (Medical) at the University of the Witwatersrand. Please find attached a copy of the approval (SPH and Ethics committees) documentation.

Should you have any questions, please contact me at

Telephone numbers 083 263 2351 or 053 873 1933
Address: P. O Box 1753,
Kimberley 8301.

For questions concerning the rights of a research subject please contact
Ms Anisa Keshav at

Telephone number 011 717 1234.

Address: Committee for Research on Human Subjects (Medical)
University of Witwatersrand
Senate House
Jorrisen Street
Braamfontein

Thank you.

_____

MB Fredericks (MPH student)

APPENDIX B: LETTER OF PERMISSION FROM THE SCHOOL

P. O Box 1753
Kimberley
8301
20 January 2007

The Principal
Mr J Jonkers
!Xunkwesa Combined School
Platfontein
Kimberley, 8301
20 January 2007

Good day Sir/Madam
Re: **Letter of permission to administer a questionnaire at the !Xunkwesa Combined School in Platfontein.**

My name is Mercedes Fredericks. I am a Masters' student at the School of Public Health, University of Witwatersrand and have to complete a research project as a requirement for the Masters Degree in Public Health. I would like to undertake a survey among the learners in grades 9 - 11 at the !Xunkwesa Combined school to assess the knowledge levels of the Sexually Transmitted Infections (STI's), HIV/AIDS and the health care services available in Platfontein.

The survey will be conducted in a confidential and anonymous manner. No names or any other identifying information of the participants will be used. Participation is voluntary and will follow the attainment of consent from parents and assent from the participants. A Self-administered questionnaire will be administered by me at the school with participating learners in grades 9 to 11.

The research protocol has been approved by the School of Public Health Postgraduate Assessors committee as well as the Committee for Research on Human Subjects (Medical) at the University of the Witwatersrand. Please find attached a copy of the approval (SPH and Ethics committees) documentation.

Should you have any questions, please contact me at
Telephone numbers 083 263 2351.
Address: P. O Box 1753,
Kimberley 8301.

For questions concerning the rights of a research subject please contact
Ms Anisa Keshav at

Telephone number 011 717 1234.

Address: Committee for Research on Human Subjects (Medical)
University of Witwatersrand
Senate House
Jorrisen Street
Braamfontein

Thank you.

_____

MB Fredericks (MPH student)

APPENDIX C: INFORMATION SHEET FOR PARENTS

P.O Box 1753
Kimberley
8301
20 January 2007

Dear Parent/s

My name is Mercedes Fredericks. I am a Masters' student at the School of Public Health; University of Witwatersrand and am doing a research project for completion of a Masters Degree in Public Health. I would like to undertake a survey among the learners at the !Xunkwesa Combined school to assess their knowledge levels of the Sexually Transmitted Infections (STI's), HIV/AIDS and the STI health care services available in Platfontein.

It is important to assess the HIV and AIDS knowledge of young people so that if there are any misconceptions and lack of knowledge, this can be addressed within the Life Skills programme that is being taught to learners at school. It is also important that all young persons are aware of health care services that are available in their own communities. The report will highlight the needs of the learners, based on the findings of the survey done. The existing Life Skills programme can then be modified to address the specific needs of the adolescents in the San community, and strengthen the HIV and AIDS prevention programmes that are being run in the community.

All information collected will be confidential and no information that could identify your child/ren will be used. Participation is voluntary and only be allowed after your consent is given and your child/ren agrees to be part of the study. There are no financial incentives for participation for parents or participants. There are no risks involved in completing the questionnaire. A participant may decide to withdraw at any time during the survey if they so wish. A questionnaire will be administered at the school with learners in school grades 9 to 11. Filling out the questionnaire will take approximately 20 minutes. No formal education programmes will be disrupted for the purpose of the survey.

The results of the study will be distributed to the school and the relevant section in the Department of Education. The results will assist in identifying knowledge levels and gaps among the learners at the !Xunkwesa Combined School in grades 9 to 11. The information collected will further assist the Department of Education in strengthening of Life Skills programmes in the school.

Permission has been granted by the Department of Education and the School Principal for the survey to be conducted. The research protocol has been approved by the School of Public Health Postgraduate Assessors committee as well as the Committee for Research on Human Subjects (Medical) at the University of the Witwatersrand. Please find attached a copy of the approval (SPH and Ethics committees) documentation.

I will be available at the school to answer questions, but if you need to speak to me when I am not at the school, please feel free to call me at 083 263 2351 or at the following address

P.O Box 1753
Kimberley, 8301.

For questions concerning your rights of a research subject please contact Ms Anisa Keshav at telephone number 011 717 1234 or address

Committee for Research on Human Subjects (Medical)
University of Witwatersrand
Senate House
Jorrisen Street
Braamfontein

Please fill out the attached consent form by signing the form and indicating if you are consenting to your child/ren's participation in the study. Your child/ren still have the choice of not participating, despite your consent that is given. Please note that non-participation will not disadvantage you child/ren in any way.

Thank you.

_____
MB Fredericks (MPH student)

APPENDIX D: INFORMATION SHEET FOR LEARNERS

P.O Box 1753
Kimberley
8301
20 January 2007

Hello Learner

My name is Mercedes Fredericks. I am a Masters' student at the School of Public Health; University of Witwatersrand and am doing a research project for the completion of a Masters Degree in Public Health. I would like to undertake a survey among the learners in grades 9 to 11 at the !Xunkwesa Combined school to assess their knowledge levels of the Sexually Transmitted Infections (STI's), HIV/AIDS and the STI health care services available in Platfontein.

All information will be collected in an anonymous manner and remain confidential throughout the study and the reporting period by using numbers instead of names. Questionnaires will be handed out randomly so that a number is not linked to you as a participant in the study. This will only be done after your parents and you have agreed for you to participate in the study. You may still choose not to participate even if your parents have agreed to you being part of the study.

If you do agree to be part of the study you have the freedom to withdraw at any stage of the study if you so wish. Withdrawal will not disadvantage you in any way as participation is voluntary. There are no risks anticipated in you completing the questionnaire. No financial incentives will be given for participating in the study. Filling out the questionnaire will take approximately 20 minutes. No formal education programmes will be disrupted for the purpose of the survey.

Permission has been granted by the Department of Education and the school principal, as the information collected will assist in addressing the knowledge gaps and also improving the health educational programmes to be more specific to the learners in your school.

The research protocol has been approved by the School of Public Health committee Postgraduate Assessors as well as the Committee for Research on Human Subjects (Medical) at the University of the Witwatersrand.

I will be available at the school to answer any questions. If I am not available at the time you need me, please leave a message with the school secretary. Please feel free to call me at 083 263 2351 if you have any concerns, or wish to discuss the matter in more detail, or at the following address

P. O. Box 1753
Kimberley, 8301.

For questions concerning your rights as a research subject please contact Ms Anisa Keshav at telephone number 011 717 1234 or address

Committee for Research on Human Subjects (Medical)
University of Witwatersrand
Senate House
Jorrisen Street
Braamfontein

I am looking forward to the work we will be doing together to ensure that learners at the !Xunkwesa Combined School are receiving the relevant information about STI's, HIV/AIDS and STI Health care services.

Thank you.

_____

Mercedes Fredericks (MPH student)

APPENDIX E: INFORMED PARENT CONSENT FORM

I hereby confirm that I have been fully informed by the research investigator about the nature, conduct, risks and benefits of the study. I understand that there is no risk and no financial gain for me or my child for participating in the study. I understand that all the information will be kept confidential and that the anonymity of participants will be maintained throughout. I understand that my child can withdraw from the study at any time and also that he/she may not assent to partaking in the study despite my consent. I hereby give consent for my son/daughter to participate in the study conducted at the !Xunkwesa Combined School.

_____	_____	_____
Printed name of Parent	**Signature/Thumbprint**	**Date**

I confirm that the participant's parents have consented to his/her participation and that he/she has assented to participation in the study, after I explained the nature of the study.

_____	_____	_____
Study Investigator Name	**Signature**	**Date**

APPENDIX F: Deelnemer Vraelys **KODE:……**

Beantwoord asseblief al die volgende vrae. **Dui u keuse met `n X in die blokkie ann.**

Deel 1: Demografie

Geslag……

Gemeenskap: ……

Ouderdom: ……

Graad: ……

Deel 2: Kennis oor Seksuele Oordragbare siektes en MIV/VIGS

Nr	Vraag	Ja	Nee	Onseker
1	Ek weet wat `n Seksuele Oordragbare Siekte is.			
	Die volgende is Seksuele Oordragbare Siektes:			
2	Gonnorrheoa			
3	Siffilis			
4	Vratjies op die genitalia			
5	Pubiese Luise			
6	MIV			
7	Bubo (swelling in die lies)			
	Die tekens van `n Seksuele Oordragbare Siekte is:			
8	Geen teken			
9	Sere op die genitalia			
10	Jeuk in die genitalia			
11	Deurskynende vloeistof van die vagina			
12	Sleg reukende vloeistof vanaf genitalia			
13	Hoofpyn			

Deel 3: Kennis oor die voorkoming van die Seksuele Oordragbare Siektes en MIV/VIGS

14	Enige persoon wat sonder `n kondoom seks het is vatbaar vir Seksuele Oordragbare Siektes en MIV/VIGS.			
15	`n Kondoom verhoed swangerskap en verspreiding van Oordragbare Seksuele Siektes.			
16	`n Kondoom word gebruik om die verspreiding van MIV/VIGS te voorkom.			
17	`n Kondoom kan slegs een maal gebruik word.			
18	Wanneer `n mens nie in seks deelneem nie, is dit `n manier om myself van MIV/VIGS en ander seksuele oordragbare siektes te beskerm.			
19	Het jy enige inligting oor Seksuele Oordragbare Siektes by die skool ontvang?			
20	Het jy enige inligting oor MIV/VIGS by die skool ontvang?			
21	`n Persoon wat aan `n Seksuele Oordragbare Siekte bloot gestel is staan groter kans om met die MIV geinfekteer te word.			
22	Ek staan `n kans om aan Seksuele Oordragbare Siektes blootgestel te word.			
23	Ek staan `n kans om aan MIV blootgestel te word.			
24	`n Persoon wat met net een ander persoon `n seksuele verhouding het moet ALTYD `n kondoom gebruik.			
25	Wanner jy op die "Pil" of die "inspuiting" is, is dit nie nodig om `n kondoom te gebruik nie			

Deel 4: Assessering van gedrag			Ja	Nee	Onseker
26	Wanneer ek vermoed dat ek `n seksuele oordragbare siekte het, sal ek liewer van huis raad gebruik maak.				
27	Ek dink dat dit noodsaaklik is om vir a VIGS toets te gaan voordat `n persoon in `n seksuele verhouding gaan.				
28	Ek bespreek my seksuele verhoudings met	my ouers			
29		my onderwysers			
30		my vriend/in			
31		kliniek verpleegster			
32		ander			
33	Die gebruik van alkohol en dwelms dra by tot onverantwoordelike seksuele gedrag.				

Deel 5: Kennis oor gesondheidsdienste vir STI's, HIV en VIGS				
		Ja	Nee	Onsek
34	Is gesondheidsdienste vrylik beskikbaar by die plaaslike kliniek?			
35	Is berading vir HIV en VIGS vrylik beskikbaar by die plaaslike kliniek?			
36	Is daar behandeling vir STI's beskikbaar by die plaaslike kliniek?			
37	Die gesondheidsdienste by die plaaslike kliniek is ingestel omjong mense te akkommodeer.			
38	Wanneer ek siek is, besoek ek die plaaslike Tradisionele Dokter.			
39	Gesondheids opvoeding en inligting is vrylik beskikbaar by die plaaslike klinie.			
40	Die plaaslike Tradisionele Dokter werk goed saam met die verpleegster by die plaaslike kliniek.			

Dankie vir u deelname. Die inligting word ten alle tye as vertroulik en privaat behandel. Uitslae van die studie sal aan die Departement Onderwys en die skool bekend gemaak word om by te dra tot bevordering van opvoeding in die

APPENDIX F: Participant Questionnaire **Code:**

*Kindly answer the following question by **marking your answer with a X in the relevant block.***

Section 1: Demographics

Gender	……
community	……
Age	……
School Grade	……

Section 2: Knowledge on Sexually Transmitted infections (STI's) and HIV/AIDS

Number	Question/statement		Yes	No	Unsure
1	I know what a Sexually Transmitted Infection is.				
2	The following are Sexually Transmitted Infections:				
		gonnorhea			
3		Syphillis			
4		Genital warts			
5		Pubic Lice			
6		HIV			
7		Bubo (swelling in the groin)			
	The signs and symptoms of Sexually Transmitted Infections is/are:				
8		no sign			
9		sore on genitals			
10		genital itching			
11		clear vaginal discharge			
12		smelly discharge from genital organs			
13		headaches			

Section 3: Knowledge on the prevention of STI's and HIV/AIDS

14	Can any person who does not use a condom during sexual intercourse get a Sexually Transmitted Infection or be infected with the HIV?			
15	A condom is used for the prevention of pregnancy and STI's.			
16	A condom is used fot the prevention of STI's			
17	A condom must be used once only.			
18	Abstaining from sex is one way of preventing infection of STI's and HIV			
19	Have you been taught about STI's at school?			
20	Have you been taught about HIV/AIDS at school?			
21	Is a person who has had a Sexually Transmitted Infection more at risk of being infected with HIV/AIDS			
22	Do you consider yourself at risk of developing a Sexually Transmitted Infection?			
23	Do you consider yourself at risk of being infected with HIV?			
24	Should a person who is in a monogomous sexual relationship always use a condom?			
25	If you are using the pill or the injection it is not necessary to use a condom.			

Section 4: Assessment of behaviour			Yes	No
26	If I suspect that I have an STI I treat myself at home with traditional medicines			
27	I think that going for an HIV test is necessary if contemplating a sexual relationship			
28	I discuss my sexual relationships with:	my parents		
29		my teacher		
30		my friend/s		
31		clinic nurse		
32		other		
33	The use of alchol and drugs changes your sexual behaviour.			

Section 5: Knowledge about health care services for STI's and HIV/AIDS

		Yes	No
34	Do you know if your local clinic provides free health services?		
35	Do you know if Counselling and testing for HIV/AIDS is free at the local clinic?		
36	Do you know if treatment for STI's are available at the local clinic?		
37	The services at the clinic are geared to accommodate my needs as a young person		
38	I would go to the local traditional healer when I am ill.		
39	I can access health education at the local clinic at all times		
40	The traditional healer from my community works with the clinic nurse		

Thank you for your participation. The results of the survey remain annonymous and confidential. A report of the findings will be distributed to the Department of Education Lifeskills and to the school.

APPENDIX G: ASSENT FORM

Assent form (Participants)

I hereby confirm that I have been fully informed by the research investigator about the nature, conduct, risks and benefits of the study. I understand that there is no risk and no financial gain for me or my parents for participating in the study. I understand that all the information will be kept confidential and that the anonymity of participants will be maintained throughout. I understand that I can withdraw from the study at any time and also that I may not agree to partake in the study despite my parents' consent.

I hereby agree to participate in the study conducted at the !Xunkwesa Combined School.

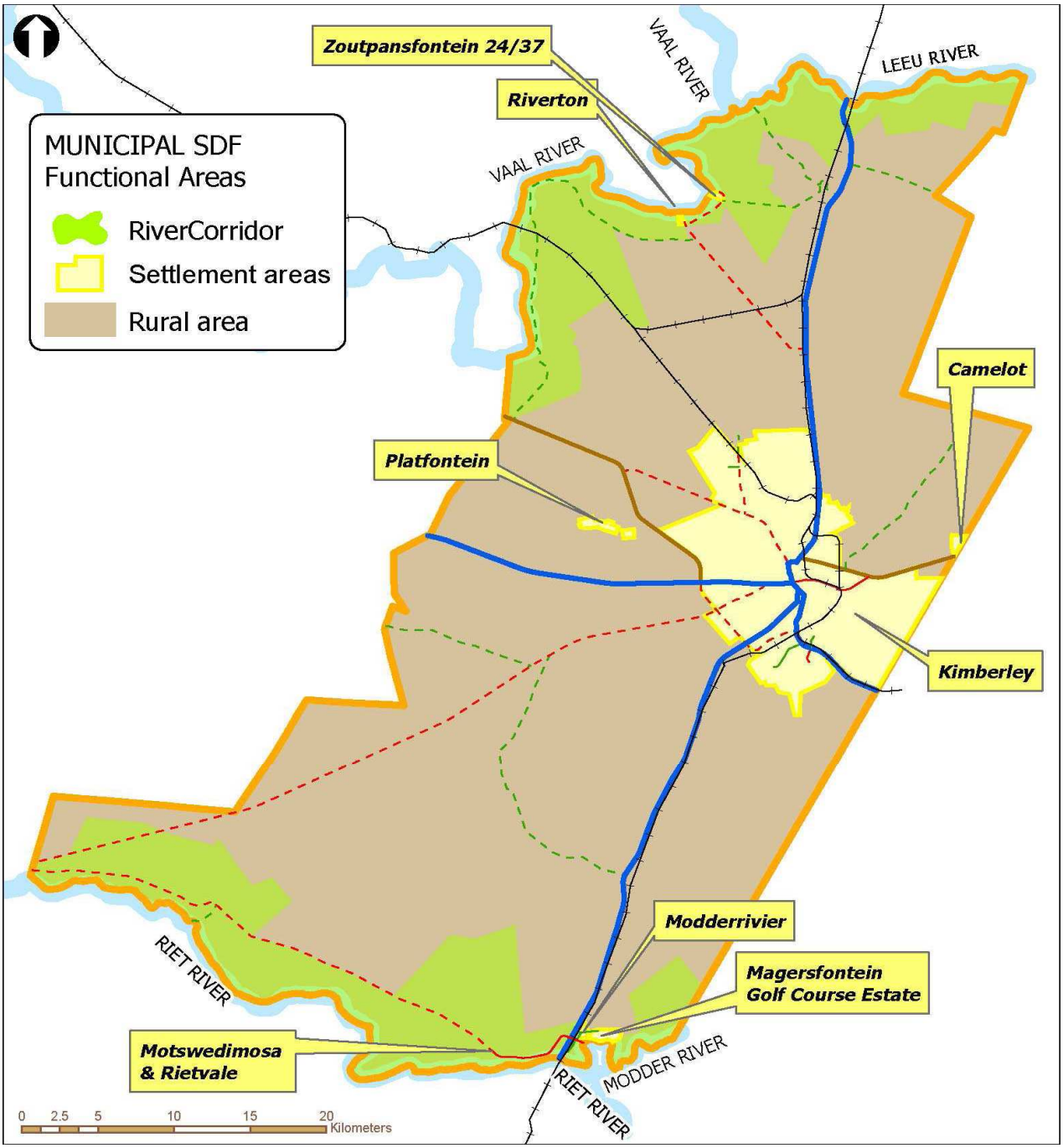
_____	_____	_____
Printed name of Learner	**signature**	**date**

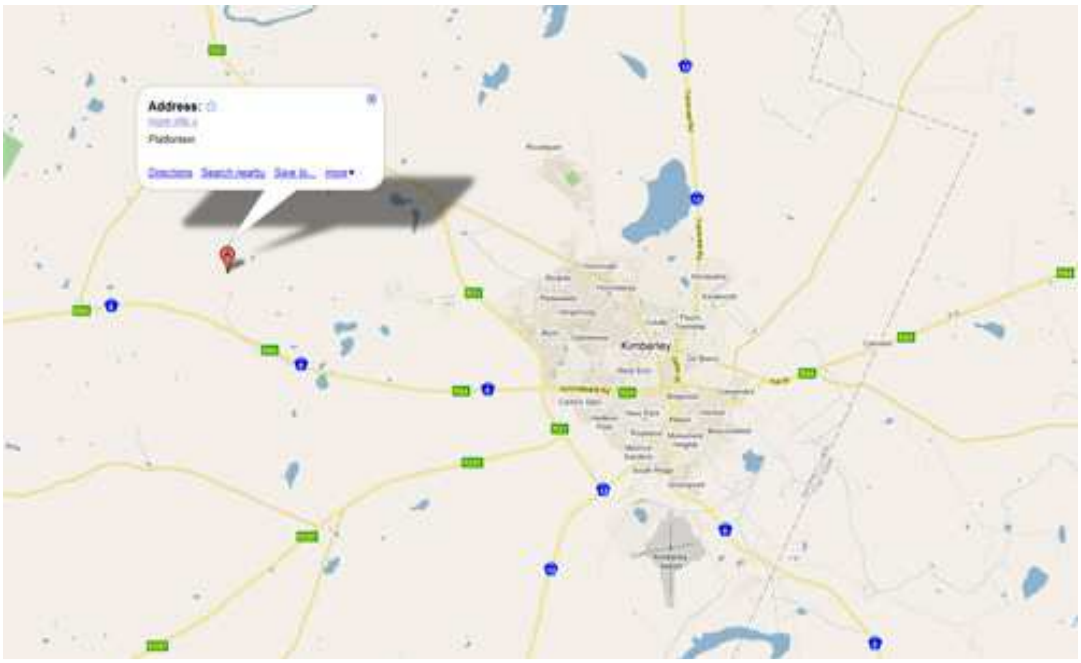
I confirm that the participant's parents have consented to his/her participation and that he/she has assented to participation in the study, after I explained the nature of the study.

_____	_____	_____
Printed name of Study Investigator	**signature**	**date**

APPENDIX H: Platfontein Map

Map Reflecting proximity of Platfontein to Kimberley. The Platfontein farm falls within the Sol Plaatje Municipality in the Frances Baard District Municipality.





Google map depicting the distance of Platfontein farm to Kimberley (Approximately 15km)