AN EXPLORATION OF ADOLESCENTS KNOWLEDGE, PERCEPTIONS AND BEHAVIORS REGARDING SEXUAL REPRODUCTION AND SEXUAL REPRODUCTIVE HEALTH SERVICES IN BOTSWANA

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Dedications

This study is dedicated to my family, my husband **Mr. T.S Dingi** and my children **Thuto**,

Archie and **Mosadi**

Declaration

I **Keineetse Dingi** declare that the dissertation entitled **An Exploration of Adolescents Knowledge, Perceptions and Behaviors Regarding Sexual Reproduction and Sexual Reproductive Health Services in Community Junior School in Botswana** is my own work, I have never submitted it for a degree at any other University for purposes of examinations and that all the sources used have been acknowledged my means of complete references

24.02.10

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26/3/2010

Signature **Date:**

Joanne R. Naidoo

Abstract

The study aimed to explore adolescents knowledge, perceptions and behaviors regarding sexual reproduction and sexual reproductive health services in community junior school in Tutume-Botswana.

A descriptive exploratory design using both the qualitative and quantitative approach was used to guide the research process. Data was collected by means of a self administered questionnaire and two focus group discussions.

A total of 76 participants answered the questionnaire and 2 focus group discussions one consisting of the 15 to 17 year olds and the other one consisting of 12 to 15 year olds were conducted.

The results of the survey highlighted adequate levels of knowledge regarding sexual matters among adolescents in the school with the bulk of the information being provided by the teacher. Parents, nurses, siblings, peers and the media played a low key role in providing adolescents with information regarding sexual reproduction and sexual reproductive health services.

The results of the focus group discussion showed marked underutilization of the local clinic for curative, preventive and promotive services by adolescents. The poor utilization resulting mainly from perceived barriers such as provider attitudes, subjective norms, cultural taboos, inadequacy of the clinic, judgmental attitudes from provider and parents as well as lack of encouragement from authority figures like parents and teachers.

Adolescents in the focus group discussion perceive themselves as being susceptible to HIV but did not appreciate the benefits of using preventive measures even though the survey group showed sound knowledge on contraception.

Improving the services to align them to adolescent friendly services, improving the delivery of information through other means apart from the teacher and reducing the barriers that discourage adolescents from reaching the reproductive health services will go a long way in improving the utilization of the services by adolescents.

Key concepts

Adolescence, adolescents, sexual reproductive health, sexual reproductive health services.

List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ACDP	Advocacy Center for Persons with Disabilities
ICPD	International Conference for people development
AYA	African Youth Alliance
BOFWA	Botswana family welfare association
BOTUSA	Botswana and the United States of America
HBM	Health Believe Model
HIV	Human Immunodeficiency Virus
MCH/FP	Maternal & Child Health Services/Family Planning
NACA	National Aids Coordinating Agency
SRHS	Sexual Reproductive Health Services
STI	Sexual Transmitted Disease
UNAIDS	United Nations Program on HIV and AIDS
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Education Fund
WHO	World Health Organization
YOHO	Youth Health Organization

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CHAPTER 1

1 .1 INTRODUCTION

The phenomenon of interest in this study is the exploration of adolescents' knowledge, perceptions and behaviors towards sexual reproduction and sexual reproductive health services in the village of Tutume North of Botswana. Although they constitute a large percentage of the populations, adolescents' sexual health throughout the world, they have long been neglected because they have lower incidences of ill health when compared to the younger and older groups (Bayley, 2003). This chapter highlights the background of the study, the problem statement, and the purpose of the study, objectives and the research questions, operational definitions of terms as well as the conceptual framework that guided the study.

1.2 BACKGROUND TO THE STUDY

Current literature abounds with various differences in the way in which an adolescent is defined in terms of the age range. The World Health Organization, (1996) defines adolescence as the period between 10 and 19 years of age and youth as the period of ages between 15 and 24, while Latu, (2006) defines adolescence as the period between the ages of 10 to 24 years. Agampudi, Agampudi and Puyaseeli, (2008) argue that adolescence is the period of transition from childhood to adulthood characterized by the onset of puberty. At this critical time the individual "undergoes biological transition" with changes in the physical structure and reproductive abilities, psychological and cognitive development which is individualistic and is more

concerned with rights, privileges and responsibilities. For the purpose of this study, an adolescent will be a person who has attained the age of 12 years and not more than 19 years of age.

In many African countries, sexual reproductive health services have been found to be under utilized by adolescents, this is evident in a study conducted by Beadledom, Munthali, Singh and Woog, (2007) in Burkina Faso, Ghana, Malawi and Uganda. The results from these national representative surveys of 12–19 year-olds have highlighted underutilization of services such as contraception, STI services and HIV testing. The study also revealed that a high number of sexually active adolescents had no idea of where to get contraception or where to be treated for sexually transmitted diseases. In a separate study conducted in Uganda by Neema, Mussin and Kibombo, (2004) the results showed high knowledge of HIV, contraception and STI, but the high knowledge was not consistent with the behavior as the sexually active adolescents continued to indulge in risky behaviors.

Several reasons have been attributed to the failure of adolescents' use of SRH services some of which are fear of being seen by adults and social stigma, shame about their needs and negative attitudes by providers (Biddlecom. et al., 2007). Senderowitz, (1999), Neema et al., (2004) and Agampudi et al., (2008) in their different studies explored knowledge, perceptions and behaviours of adolescents regarding sexual reproductive health services. The results from their studies concurred that there was underutilization of sexual reproductive health services including prevention of pregnancy and STIs and the treatment of STI, due to lack of knowledge by adolescents on where to obtain such services. The failure to seek treatment was attributed to lack of perceived seriousness of the symptoms. Similarly, in Sri Lanka, Agampudi et al., (2008) in their study on the perceptions of sexual reproductive care services among adolescents found that there was generally a lack of knowledge on existing services and SR matters and under

utilization of the sexual health care services. The study further revealed that lack of knowledge regarding sexual reproductive health matters resulted in the adolescent girls discussing sexual issues with their friends (who may have not had any better knowledge regarding SR) while their male counterparts verbalized that they did not talk to anyone regarding such issues.

Worldwide, 20% of the population constitutes young adults of 10 to 24 years with 4 to 5 living in developing countries (WHO, 2008), Bankole, Singh, Woog & Wulf, (2005) estimate that there are about 10 million adolescents in Sub-Saharan Africa who are aged 15 to 24 years, and evidence shows that throughout the world more than half of new infections are found among the 15 to 24 age group (Villafana, Phaladze, Stegling, Hambira, Thumbi & Makhema, 2008) and (UNICEF, 2003). Research has also found that adolescents in Africa have the highest birth rate of 143 per 1000, which is high in comparison with other regions, such as Latin America and Europe which have birth-rates of 78 and 25 per 1000 respectively (Bearinger, Michael and Resnic, 2003). Furthermore Sub-Saharan Africa has the highest prevalence of HIV although several Sub-Saharan countries like Zimbabwe, South Africa, Namibia and Botswana have shown a decline in the prevalence rate among the youth (UNAIDS/WHO, 2007). AIDS has continued to be the main cause of death throughout the world. Of all the 2.1 million people who died of HIV worldwide in 2006, 76% of these deaths were from Sub-Saharan Africa (UNAIDS/WHO, 2007)

As indicated by WHO HIV/AIDS update, (2007) and (UNFP, 1999 report) Sub-Saharan Africa is the region where the highest prevalence rate of HIV is found (63%) and that in 2005 6.2% of the adolescents aged 15 to 24 were infected Biddlecom, et al., (2007). Bearinger, et al., (2003) concur that it is apparent that adolescents in sub-Saharan Africa are indulging in unprotected sexual activities and often with older men who have been previously exposed; this could explain

the high prevalence rate of HIV found among the youth in Sub-Saharan Africa (Biddlecom, et al., 2007).

According to Youth Development Network Botswana, (2009) in 1995-1996, 55.3 % of the population of Botswana represented adolescents aged 12 to 29. The Ministry of Health, (2006) and WHO, (2007) reported an overall fall in the prevalence rate of HIV /AIDS from 36% to 32%, despite this decline in overall prevalence, the prevalence of HIV remains unusually high among pregnant teenagers, 18% of whom tested positive in 2005 (Ministry of Health, 2006). A disturbing factor in relation to this phenomenon that has been revealed by Mookodi, Ntshebe and Taylor, (2004) is that there is no clear policy on sex education, the curriculum covers minimal sex education and reproductive health through guidance and counseling otherwise other subjects such as science may also cover certain aspects of the issue such as reproductive health. Mookodi et al.. (2004) further noted that the curriculum policy for sex education teaching is not clear in primary school curriculum. The curriculum becomes better defined at secondary school level. This denies the younger adolescents valuable information that could help them avoid certain risks such as teenage pregnancy, STIs and HIV infection. This is a disturbing factor because adolescents (ages 10 to 19 years) are found in both primary and secondary schools in Botswana.

Adolescents are at higher risk of HIV/AIDS and teenage pregnancy which are both preventable but if contracted they can lead to devastating long term physical and psychological trauma to the individual concerned as well as stigma related to teenage pregnancy, maternal and child mortality (Senderowitz, 1999). In view of the high prevalence rate in these two areas, there is a perception that there are under utilization of the sexual reproductive health services (Senderowitz, Hainsworth & Solter, 2003). It is therefore necessary to explore the knowledge, attitudes and behaviors of adolescents towards sexual reproductive health services and to identify

those factors that can hinder or enable the adolescent from fully utilizing the sexual reproductive health services which are usually free of charge.

Another area of concern is that of teenage pregnancy which has consistently been high in the country. According to a women's non-governmental organization (NGO) coalition in Botswana (2002), 9% of the school dropouts at secondary schools are due to pregnancy while UNFPA (2000) reports that 60% of all the new pregnancies were of adolescent mothers. Mookodi, Ntshebe and Taylor, (2004) reported the total teenage pregnancy rate to be 19%.

Teenage pregnancy in schools has also been reported. According Olesitse (2009) Materspei College recorded 34 pregnancies between January 2008 and March 2009. Mookodi et al., (2004) also suggested that the high incidence of teenage pregnancy in Botswana could be a sign that adolescents are still practicing unprotected sex.

When the Ministry of Health launched the policy guidelines and service standards for sexual and reproductive health in 2001, it was meant to guide the service providers in the implementation of the appropriate sexual reproductive health services to different age groups. Despite this development, the services in Botswana are still offered as Maternal and Child Health or Family Planning Services. Adolescents' SRH services are still offered under the mainstream care. Not much has changed in the way the services are being offered. Currently, there is only one youth friendly clinic offered at the Botswana family welfare clinic (BOFWA) in Gaborone. This lack of services means that there are no adolescent friendly services because adolescents are mostly not mothers or children as indicated in the Maternal and Child Health Records (Ministry of health, 2003). This Maternal and Child Health Services or Family Planning Services also deter

male adolescents from using what they perceive as the "women's clinic and would rather self treat than be seen at an MCH clinic (Senderowitz et al., 2003).

African countries, Burkina Faso, Ghana, Malawi Uganda etc. have in recent years started to look at the health of adolescents with renewed seriousness mainly because of the ever increasing statistics of HIV/AIDS among the youth within the ages of 15 to 24 years which has caused devastating impact (Kibombo et al., 2008) The government of Botswana through the National AIDS coordinating Agency, (NACA), the Ministry of Education and several non-governmental organizations has worked in collaboration to curtail the problem. Several youth programs such as peer education at both primary and secondary schools have been established, UNFPA has sponsored a national television program called "Talk Back" aired weekly. The program provides live interactive debates; this is the main communication vehicle of the teacher capacity building for HIIV/AIDS prevention in Botswana. Furthermore an international AIDS charity organization called AVERT has embarked on several projects some of which are the Botswana family Welfare Association, an organization which aims to address youth friendly services for out of school youth. This organization has established a youth friendly clinic in Gaborone. There is also a Radio drama called "Makgabaneng" which discusses culturally related HIV/AIDS issues under the auspices of the Botswana United States of America partnership (BOTUSA) projects. In addition the Youth Health Organization (YOHO) a non-governmental organization spreads HIV/AIDS messages through arts and music festivals, drama and discussions.

Despite efforts made to target adolescents, HIV/AIDS statistics continue to rise. Botswana ranks number two in the world after Swaziland with an overall prevalence rate of 32% of which 18 % are teenage mothers (WHO, 2008).

Several studies have focused at the relationship between the increase in HIV and teenage pregnancy for example, according to UNFPA, (1997) adolescents' contraception use in Botswana was only 20% while the rate of teenage pregnancy was 30%. Mookodi et al., (1994) have also supported this relationship. The above scenario can be attributed largely to unprotected sex.

1.3 STATEMENT OF THE PROBLEM

In the adolescent HIV Vaccine trials currently being conducted in Botswana, it was observed that HIV infection rates start rising sharply in the adolescent years. Twenty three percent (23%) of females and 2% of males are infected (Villafana et al., 2008), this translates to 1 in 4 girls between at the age 15 and 19 year olds being infected, which is regarded as very high. This means that there could be underutilization of the preventive measures either due to poor knowledge, wrong perceptions and wrong behaviors.

Although there has been positive development in improving delivery of SRH in Botswana, the services in Botswana are still offered under the umbrella name of Maternal and child health services and family planning services of which the name is not very accommodating of adolescents. The name denotes that the facilities are not youth friendly as the name does not includes adolescents. The services are also not youth friendly in terms of service and structure and they do not meet most of the criteria stipulated for the adolescent friendly services (Jackson H, & Pitso, 2003). This was further revealed during an evaluation on youth services in the country by Pathfinder/African Youth Alliance (AYA). The results of the evaluation e categorized the services as "not that good". However the use of condom was said to have increased (Senderowitz, 1999). This means that the services did not meet the criteria as suggested by

Senderowitz, (1999) and WHO, (2002). It has been found that many young people regard such services as inappropriate to them and thus they will not seek help from them except when they are desperate. This has been summarized in the report by centre for health and gender equity, (2009) that sates that "although sexual reproductive health services are available in Botswana they are not accessible, particularly to for young people". Further to this Mookodi et al., (2004) argues that the youth in Botswana have an inclination towards condom use but their sexual behavior is still risky.

Several studies have been conducted in Botswana concerning issues surrounding adolescents' sexuality some of which were by the following: (Ministry of health, 2001; Mookodi et al., 2004); Ngomi 2008; Nkosana & Rosenthal, 2008; Onyewadume, 2008). Although the study conducted by the Ministry of Health in collaboration with UNICEF, AYA, UNAIDS and PSI International titled "The sexual behavior of young people in Botswana" was a national study that covered adolescents in both urban and rural areas, the researcher has not come across any study that has been conducted in Botswana that focuses on knowledge, attitudes, behaviors and practices of adolescent towards sexual reproductive health services in a rural area particularly in the north of Botswana. It is against this background that the researcher felt challenged to undertake this study.

1.4 PURPOSE OF THE STUDY

The overall purpose of this study was to explore the knowledge, perceptions and behaviors of adolescents towards sexual reproduction and sexual reproductive health services in Botswana and to write recommendations to the Ministry of Education as well as the guidelines for health workers planning adolescent health care services.

1.5 OBJECTIVES

The objectives of the study related to the aim of the study, were to:

1. Assess the level of knowledge of adolescents regarding sexual reproduction and sexual reproductive health Services.
2. Explore the perceptions of adolescents towards the current sexual reproductive health services in Botswana.
3. Assess the level of utilization of the sexual reproductive health services among adolescents
4. Identify the enabling factors to effective utilization of the existing sexual reproductive services in Botswana.
5. Identify the limiting factors to effective utilization of the existing sexual reproductive services in. Botswana.

1.6 RESEARCH QUESTIONS

1. What is the level of knowledge of adolescents regarding sexual reproduction and sexual reproductive health services?

2. How do adolescents perceive the current sexual reproductive health services in Botswana?

3. To what extent are the sexual reproductive health services being used by adolescents?

4. What are the enabling factors to the effective use of reproductive health services among adolescents?

5. What are the limiting factors to the effective use of reproductive health services among adolescents?

1.7. SIGNIFICANCE OF THE STUDY

To the community

The study will benefit the community because if there are any limiting factors they will be corrected and if there are any enabling factors they will be upheld to improve the service.

To the other stake holders (ministry of health)

The findings of this study are expected to influence policy on education concerning the teaching of sexuality and reproductive health. In a study conducted by Mookodi et al., (2004) it was found that the ministry of education in Botswana has no clear cut policy on teaching sex education in junior secondary school.

To the healthcare system

The study will help establish norms about adolescent knowledge and will help the health workers to plan the care for them. It may also help to restructure the existing health care facilities and services to suit adolescents' needs in terms of approach and not necessarily structural.

Addressing the issue of sexual reproductive health for adolescents will indirectly reduce HIV among the adolescents. De Bruyn, (2000) states that "ensuring that adolescents receive sex education so that they are well informed about reproductive processes as well as positive and negative aspects of sex will effectively protect them against HIV/STI infections. UNESCO, (2004) also emphasizes that the need for sex education cannot be overemphasized. The report states that education is a preventive weapon against HIV infection because adolescents in schools are likely to postpone their sexual debut, use protective measures and have fewer sex partners.

To Research

The findings of this study shall add to the existing body of knowledge about adolescent sexual matters.

1.8 OPERATIONAL DEFINITION OF TERMS

For the purpose of this study, the following definitions shall apply and be adopted and used within the context in which they are explained.

Adolescence or Adolescent

According to WHO, (1996) adolescence is the period between 10 and 19 years of age and youth as ages of 15 to 24. Latu, (2006) defines adolescence as the period between the ages of 10 and 24 years of age. For the purpose of this study an adolescent is a person who has attained the age of 12 years and not more than 24 years of age

Knowledge

Knowledge shall refer to the level of understanding by adolescents regarding sexual reproduction and reproductive health services.

Perceptions

Perceptions shall refer to the manner in which adolescents understand or view reproductive health services (could be both emic and etic views).

Puberty

The national cancer institute defines puberty as the time in a child's life when physical and hormonal changes occur. Secondary sexual characteristics also become evident and child may be ready for child bearing.

Sexuality

How people experience and express themselves as sexual beings.

Behaviors

Behaviors shall be defined as the actions or reactions of adolescents towards sexual reproductive health services.

Reproductive health

A state of physical mental and social well being in all matters relating to the reproductive system at all stages of life.

Reproductive health services

The International Conference for Peoples Development Program of Action (ICDP) (1994) defines reproductive health care as the constellation of methods, techniques and services that contribute to reproductive health and wellbeing through preventing and solving reproductive health problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counseling and care related to sexually transmitted diseases.

1.9 THE CONCEPTUAL MODEL

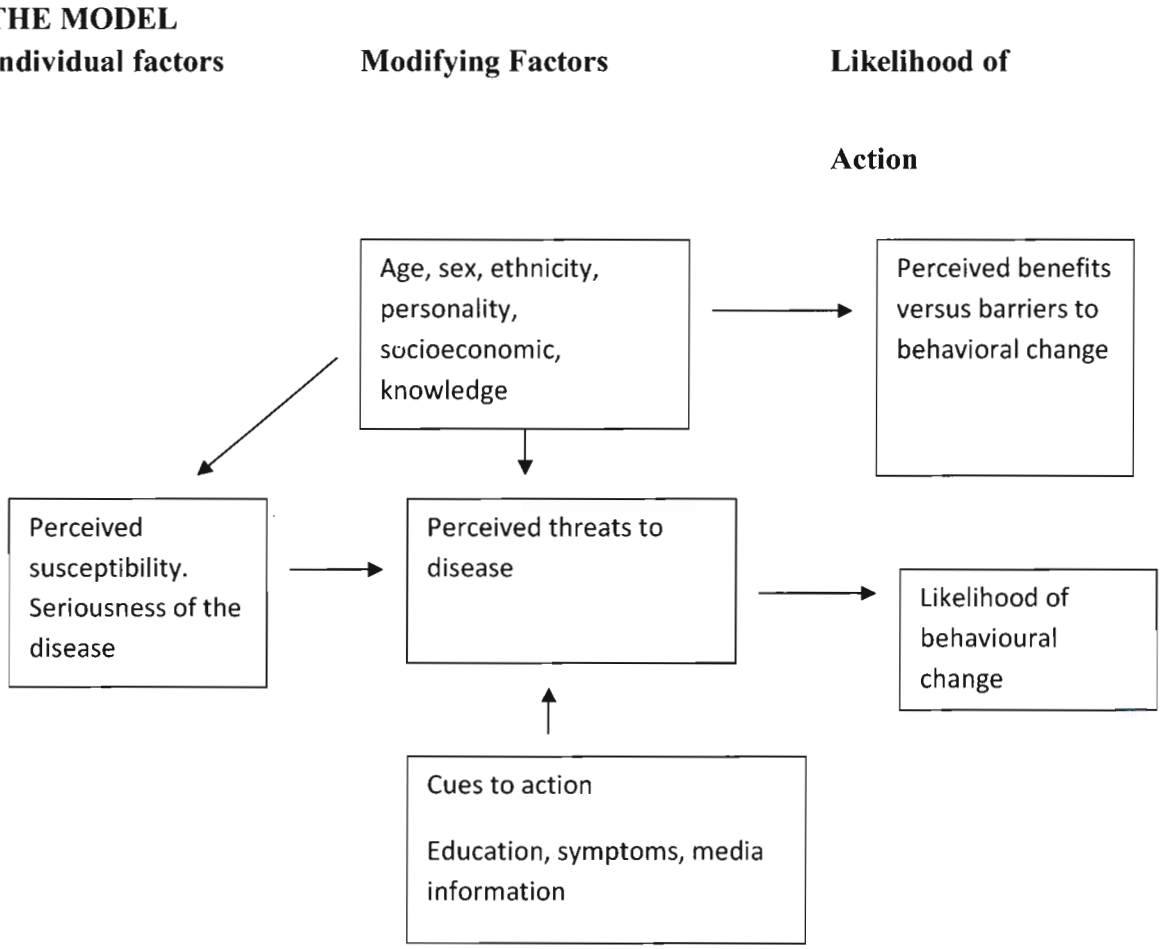
1.9.1 The Health Belief Model

The study will be guided and informed by Rosenstock's, (1966) Health Belief Model. This is a social-cognitive model which was developed in the 1950's by the United States Public Health Services. The model is often used to predict a variety of preventive health behaviors where perceived risks are studied (Becker, 1974). The focus is usually on the attitudes and beliefs of the individual.

Polit and Beck, (2008), state that "the model postulates that health seeking behavior is influenced by a person's perceptions of threats posed by a health problem and the value associated with actions aimed at reducing the threats". The Health Belief Model is based on four major components: perceived susceptibility where a person has a perception that a health problem is personally relevant or that a diagnosis is accurate. Perceived severity: a person feels threatened by the susceptibility or the diagnosis otherwise the person may not take action if the diagnosis is not perceived as severe, for example when the disease has organic or social implications such as HIV/infections. The implications are perceived benefits and costs, motivation and enabling or

modifying factors. Perceived benefits are the patient's beliefs that a given intervention will cure the disease or prevent its occurrence. Perceived costs are the complexities, duration and accessibility of the treatment. Motivation is the desire to comply with treatment. Modifying factors include demographics and patient's satisfaction. Polit and Beck, (2008) argue that these four major components determine one's readiness to act. In addition the model includes other components such as self efficacy which indicates one's confidence in the ability to successfully perform the action.

THE MODEL



Adapted from: Glanz K. Primer BK and Lewis FM, (2002).

1.9.2 Relevance of the model to the study

The Health Belief Model was chosen as being appropriate for this study because most of the key concepts used in the model are applicable to the study on adolescents' knowledge, attitudes and behaviors towards sexual reproductive health.

The variables such as knowledge concerning reproductive health were explored because adolescents have to understand the anatomy and physiology if they have to appreciate the need for using sexual reproductive health services. (See research question 1) but knowledge alone may not necessarily lead to action unless that knowledge helps the adolescent to realize that their fail ure to use SRH services while they continue indulging in sexual activities makes them more susceptible to some diseases such as HIV and STIs

Perceived susceptibility: personal risks or susceptibility is one of the more powerful perceptions which can make one to change their behavior for better health. When the risk is perceived as being high then there is a likelihood of behavior change high then there is likelihood of taking action (Battle, 2008). Adolescents own perceptions about HIV and the services were explored.

Perceived severity/seriousness: this is based on an individual's belief about the seriousness or the severity of the disease. It is often based on medical information or knowledge but it may also depend on individual beliefs about the difficulties the disease will cause or the effects it will cause on his life in general. (McCormick-Brown, 1999). The author also adds that when the person feels threatened by the susceptibility or the diagnosis otherwise the person may not take action if the diagnosis is not perceived as severe, e.g. when the disease has organic or social

implications such as HIV/infections (Polit & Beck, 2008). In this study perceived seriousness would lead to proper utilization of the sexual health services.

Perceived benefits and costs: motivation and enabling or modifying factors. Perceived benefits are the patient's beliefs that a given intervention will cure the disease or prevent its occurrence. Perceived costs are the complexities, duration and accessibility of the treatment. Motivation is the desire to comply with treatment. This was found relevant because if adolescents perceived themselves as being susceptible then they will perceive the benefits of using the sexual health services.

Modifying factors include demographics and patient's satisfaction. (Polit & Beck, 2008) these four major components are thought to determine one's readiness to act. The focus of the analysis will be on the 3 main areas of concern, namely the perceived barriers, susceptibility and knowledge will be the main area of focus in the analysis. For this study other factors such as utilization of the services /the clinic will also be discussed as they address the behaviors of adolescents.

1.10 CONCLUSION

This chapter has introduced the problem being studied within the context of a rural setting in Botswana. It further highlights the purpose, objectives and research questions that were used to interrogate this study phenomenon. The Health Belief Model was applied to this study and was used as a framework that guided data collections and analysis. The following chapter will comprise of the literature review.

2.1.1 Overview of Adolescent Stage.

According to World Health Organization WHO, (1996) adolescent stage is the period between 10 and 19 years of age and youth as ages of 15 to 24. Latu, (2006) defines adolescents as the period of ages 10 and 24 years of age. In Botswana the policy guidelines and service standards for sexual and reproductive health, (2001) have adopted the age range 10-24 years for the stage of adolescence. According to WHO, (1996) "The lines between childhood adolescents and adulthood differ by culture, physiological maturation, social responsibilities and roles and economic independence."

Adolescent stage is a very difficult and confusing time of an individual's life. It is a time when a child is moving from the stage of childhood to that of adulthood. Erikson, (1994) explains that during this stage of development the individual is struggling between "identity versus role confusion". The individual is trying to identify whether she or he is an adult or still a child. It is therefore a critical stage of life where the individual is trying to explore and experiment including with "relationships with the opposite sex" (Bankole et al., 2004; WHO/UNAIDS, 2007).

At this stage of development and confusion, adolescents are at greater risk of reproductive health problems, (Senderowitz et al., 2003) and yet they are usually not so keen to access sexual reproductive health services, this is in part a result of lack of awareness, inadequate information and significant barriers posed by the existing health services.

The great need for making available information and services to the adolescents was expressed at the 1994 International Conference on Population Pevelopment (ICPD) conference held in Cairo-

Egypt. This information will help them to be more comfortable with their sexuality and in turn to help them to be in control of their lives such as prevention of pregnancy and STI. Information about adolescent sexuality should include puberty, pregnancy and STI, including HIV/AIDS (UNFPA, 2003)

UNFPA has observed that adolescence is a process of growth and through this process guidance is of outmost importance, but guidance cannot be left to the family alone, the guidance should be a multi concerted efforts from all the stake holders such as teachers, youth groups religious organizations and the governments. This will help adolescents to avoid all the possible hazards they face. Ministry of Health, (2001) this is especially important as learning about sexuality is not once off but rather a lifelong process and a basic aspect of everyone's life. However parents are not always prepared to discuss these issues with their children either due to lack of skills or cultural taboos ICPD (1994)if the stake holder do not come together adolescents will always be at risk of problems like Sexually Transmitted Infections , unwanted pregnancy, HIV etc.

Understanding these factors is very important in order to be able to address the needs of adolescents at family, school and health care facility.

Several researchers in Botswana have looked into matters surrounding adolescent's sexuality e.g. the Ministry of Health, (2001) explore the adolescents sexual behaviors and practices in Botswana, Mookodi, et al., (2004) and Ngomi, (2008) looked at utilization of the sexual reproductive health services in Botswana. Nkosana and Rosenthal, (2008) looked at the factors contributing to "saying no to intergenerational sex" between adolescents and older men, and Onyewadume, (2008) explore adolescents anxiety regarding HIV among University of Botswana students.

2.1.2 Adolescents' Challenges

This exploratory stage calls for proper guidance of the adolescent as it can have great influence on the adolescent's future choices. It is a time when decision taken may determine the future of an adolescent. At this stage apart from the confusion of adulthood and childhood, adolescents are also confused by the physical maturation such as development of breast and menstruation in girls and the breaking of the voice for boys. Those who engage in sexual relationships may change partners frequently or have many partners at the same time (Bankole et al., 2004). In light of this unsafe behaviors, UNFPA, (2003) has expressed the need for guidance and formation of relationships and social structure that can respond to adolescents concerns and needs at this time of confusion.

Adolescents also face a problem of poverty because they are not working and may need money for school or even to feed other siblings when they are orphaned which can force them into some risky behaviors like unprotect sex for the sake of survival. UNFPA, (2003) has observed that those adolescents who are poor are less likely to seek contraception even though adolescents especially girls lack the skill to negotiate safe sex especially when they are with older men. This put adolescents at increased risk of contracting HIV/STIs and unwanted pregnancies.

Adolescents are also a forgotten group when it comes to health care service provision because they are relatively healthy once they have survived the childhood morbidities. The health care services especially in developing countries were not built with them in mind as they are either for children or adults (Senderowitz, 2003). This is the main reason why most of the countries especially in sub-Saharan countries are not adolescent friendly.

2.1.3 Adolescents' Behavior

Behavioral, physiological and socio-cultural factors and their exploratory behaviors make young people more vulnerable than adults to HIV infection (WHO, 1995). Bonkole et al., (2004) Observed that adolescence is a time when young people naturally explore and take risks in many aspects of their lives, including sexual relationships. And those who engage in sexual intercourse may do so with concurrent partners and not use protection. Oware-Gyekye, (2005) and Senderowitz et al., (2003) have observed that sexual behaviors differ greatly from one culture to another and also differ at different stages of life: adolescent being the critical stage. In order to enhance good sexual behaviors of the adolescents it is very important to equip them with relevant knowledge on sexual matters (Fisher & Fisher, 1998). This should include discussions concerning sex and its outcomes (WHO, 1995). This will then open the way for adolescents to talk to their parents about sexual matters. It has been revealed that adolescents lack knowledge on all aspects of sexuality because they fear their parents will think they indulge in sexual activities (Bonkole, 2004). This has been blamed partly on the breakdown of the traditional family systems where people used to sit and talk, as it is no longer performing its functions due to modernizations and urbanization and education (Oware-Gyekye; 2005; UNFAP, 2003).

The media, when accessible can also play a role in disseminating information to adolescents; this could be through television radio; print; media or internet. International studies have revealed conflicting evidence concerning provision of sexual information through the media probably depends on the setting, For instance in India McManus and Dhar, (2008) in their study of knowledge, perceptions and attitudes of adolescent girls towards STI/HIV, safer sex and sex education, found that adolescents had received information mainly from internet media and

friends. Contrary to this in other studies seeking to establish the preferred source of knowledge on reproduction Somers and Surmann, (2004) and Biddlecom et al., (2006) in their separate studies concur that the media, siblings and peers were the least preferred sources for such information. The notion was further supported when Singh, Singh, Arora and Sen, (2006) who assessed knowledge regarding puberty and menstruation among adolescent girls in a girl school only found that first source of information regarding menstruation was the mother 64.9% followed by friends 27.5%, books and magazines 2.2 % and teacher and others 3.2%.

2.1.4 Adolescents Sexual Reproductive Knowledge

One of the strategies to empower adolescents will be to empower them through relevant sexual education so as to allow them to make informed decisions. Education whether acquired through formal or in formal means such as mass media, public information or community organizations is equally important and it can help to reduce vulnerability. Knowledge also gives the means for avoiding risks (United Nations Education Scientific and Cultural Organization (UNESCO), 2004). The authors also state that when knowledge has been provided then it can foster attitudes and provide skill through which there can be culturally sensitive communication. Given the fact that a lot of young people in sub-Saharan countries and elsewhere become sexually active during adolescent stage, it is of paramount importance that they are made to understand the factors that place them at risk of pregnancy and STIs and for them to know that they can access services to reduce the risks (Petroni, ND)

Adolescents may lack knowledge about their sexuality as well as the different methods of family planning. They also don't possess the skill and enough exposure and wisdom to deal with the potential risks that often face them (UNFP, 2003). According to (Dejong, Sheppard, Roudi-

Fahani and Ashford, 2007) adolescents lack knowledge in matters relating to sex amd sexuality. In another study by Osis, de Sousa, Neto and Tadini, (2006) have shown that adolescents have adequate knowledge regarding matters concerning sexuality. This has also been supported in a study titled knowledge of contraceptive methods among adolescent by Martins, Coasta-Paiva, (2006) where it was highlighted that 95% of students both from private and public secondary has adequate knowledge on contraception.

There is a widespread belief that knowledge is power, and gives one the power to make the right decisions, but having knowledge does not always lead to change in behavior as observed in INCLEN Research, (2001). Polit and Beck, (2008) also report that even when people have knowledge they don't always see themselves as being at risk of sexual transmitted disease, this was also revealed in a multinational study conducted in Burkina Faso, Ghana, Malawi and Uganda by Biddlecom et al., (2006) where 90% of boys in Malawi reported not using a condom consistently despite adequate knowledge of HIV and modes transmission. Another factor that factor that make adolescents vulnerable is what has been referred to as personal fable by Nevid and Rathus cited in (Tate, 2008). This is the belief by adolescents that nothing bad can ever happen to them or that they are invincible. Personal fable can be related to some of the behavior that was described in Botswana adolescents in an ongoing study on HIV vaccine in Botswana where they reported that there was "widespread denial" by adolescents. Adolescent don't consider themselves as being vulnerable to contracting HIV even when they are sexually active (Villafana et al., 2008)

Kibombo et al., (2008) has observed that adults have great influence on shaping attitudes and behaviors of the youth, this can happen in the conducive setting of the family environment. Parents influence the opinions and norms of their children, the same also goes for adults who

provide service to the children such as the teachers and the community leaders, and yet In many sub-Saharan countries such as Malawi, Uganda, Burkina Faso and Ghana Middle East and North Africa studies have shown that discussion between parents and children concerning sexuality and sex is a taboo. Dejong et al., (2007) in their study conducted in the Middle East and North Africa observed that cultural taboos are major obstacles to informed discussion about reproductive health issues particularly with young people. Mohammadi, Mohammad, Farahani, Alikhani, Zare and Tehrani, (2006) on the other hand observed the above mentioned phenomenon makes adolescents reluctant to seek information from their parents for fear that their parents will assume that they are engaging in sexual activities. On the same breath United Nations Fund for Population Activities, (2003) and Oware-Gyekye, (2005) has attributed this phenomenon to the breaking down of extend family system especially in urban areas have denied adolescents one of the most powerful tool of education and communication. Sex education has therefore been relegated to peers, media and the teacher and the health facility. It is for this reason that the health care services should be well designed and equipped to deal with needs of adolescents.

2.1.5 Youth Friendly Services

Highlighted by research is the youth friendliness of the facilities and the services. It is worth noting that a lot of health facilities especially in the developing countries were made either for peadiatrics or adult populations. The following authors seem to agree that for adolescents to be better served there is need for adolescent friendly services (Advocate for Youth, (2002); Petroni, ND &; Senderowitz, 1999). Senderowitz, (1999) goes on to say that it does not matter where these services are offered but they should be able to "attract, serve and retain" the adolescents, on the other hand adolescents have cited several factors that they perceive as barriers to using

reproductive health services. Some of those factors include laws and policies that may restrict access to available services and information as well as shame and fear of being seen at those facilities. Though some authors like Erulkar, Anoka and Phiri, (2005) and Latu, (2002) belief that youth friendliness of the facility is not the only important factor in attracting and retaining the adolescents, equally important is the nurses' attitudes and social factors that play a major role in determining the extent of use of reproductive health services. Moya, (2002) and Senderowitz, (1999) have described Youth friendly services as those services that will not present any obstacles to sexual reproductive care for adolescents.

While the youth friendly services may play a role in enhancing the utilization of the SRH services, adolescents are still faced with fears that others might get to know of their visit, shame about their needs, or they may bump on their neighbors and relatives who may think that they are sexually active. This factor has been alluded to by Senderowitz, (1999) when she states that adolescents do not use existing services because of many reasons some of which could be policy constraints, operational barriers, and lack of information and feelings of discomfort. Negative attitudes towards sexual reproductive health services harbored by adolescents may stem from the negative attitudes of providers, coupled with lack of privacy and confidentiality and age restrictions (Biddlecom et al., 2003; Wood & Jwekes, 2006) this then suggest the need for a standalone adolescent service point. otherwise the hours for adolescents may be adjusted to suit adolescents who spend most of the day at school. The facility and the services should meet the minimum standard of the tool as stipulated by Senderowitz et al., (2003)

2.1.6 Criteria for Youth Friendly Services

The following are the youth friendly program characteristics as stated by (Senderowitz et al., 2003).

1. **The Location** adolescents have expressed the need to be served alone and away from adults and neighborhoods, but at the same time they do not want to travel long distances to access the services or they may not afford it.

2. **The facility hours** the clinic should be able to open at odd hours when the adolescent are finished with school such afternoon and weekends.

3. **The Facility Environment**-young people in general prefer a comfortable setting that has age appropriate decor and more relaxed staff "who are not wearing white uniforms and coats"

4. **Staff Preparation** specially trained staff to work competently with adolescents is often considered the most single important condition for establishing youth friendly services.

5. **Services provided**- a "one stops shopping" type of services is the most desired because if adolescents are to be referred to another facility there is always fear that they will not show up.

6. **Peer education**- many young people prefer talking to their peers about certain sensitive issues, therefore to have peer educators or counselors available as an alternative or supplements to some aspects of the counseling activities will be an added advantage. However it is critical that these peer educators are well supervised.

7. **Educational Activities**- education activities should be structured to suit a large number of adolescents. Strategies such as videos or computer based health education may be viewed when

people are waiting to be seen. Some reading material should be available to take home so that the adolescents can refer to them later.

8. **Youth Involvement**- a fundamental principle in design of youth friendly services is to ensure participation of young people in identifying their needs and preferences for meeting those needs. This will ensure ownership of the program which will motivate young people to recruit their peers and to advice on needed adjustment.

9. **Supportive services**- clear detailed operational policies are likely to result in more consistent and even improved provision of services. These policies should be clear protocols for protecting client confidentiality including privacy in the registration process and the secure storage of clients of clients' records.

10. **Administrative procedures**- because adolescents are present minded and rarely plan ahead there is a chance that they can drop in any time and they should not be return to come later as they may not come back, so it is important that the opportunity should be seized whenever the adolescent present herself or himself for reproductive health services.

11. **Public recruitment**- adolescents should know the clinic and other existing service programs and where they are located, but they must also know what services are offered in these facilities. They must also be assured of privacy and confidentiality.

12. **Fees-** cost can be a significant barrier to the potential adolescents client. Fees if charged should be affordable.

If the health care facility does not meet the above criteria then it is not youth friendly.

2.2.7 Conclusion

According to the Ministry of health, (2001) Botswana has a youthful nation and therefore it is fitting that sexual reproductive health is given the attention it deserves. Adolescents are still faced with a lot of challenges in accessing the health care services.

In this chapter the definition of adolescents, the challenges they face, their lack of knowledge and the availability and appropriateness of health services were looked into. This chapter has also helped the researcher to appreciate how the above mentioned issues affect adolescents in their pursuit of health.

CHAPTER 3

THE RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter was to provide an overview of the research methodology that was used in this study. The focus will be particularly in the following areas: the research design, the setting the study population, sample and sampling procedure, data collection methods, data analysis, reliability and validity, ethical consideration permission and informed consent as well as the limitation of the study and the conclusion.

3.1.1 Research approach

The research design served as the blueprint of how the study is going to be conducted with little influence from any factors that may alter the results of the study (Burns & Groove, 2005). The research design is the aspect that influences the type of population, the sampling procedure, methods of measurements, and the plan for data analysis (Burns & Grove, 2005). For this study both the qualitative and the quantitative approaches were used.

3.1.2 Research Paradigm

For the purpose of this study both the positivist and the interpretive paradigms were assumed, using both qualitative and quantitative methods. The positivistic paradigm assumes that there is reality that needs to be explored. Burns and Groove, (2005) and Polit and Beck, (2008) goes further on to say that even when an objective reality is not being observed it still exists. Since the

positivist paradigm assumes a great deal of objectivity in data collection, it usually uses the quantitative approach. Therefore to address the first objective which aimed to assess the level of knowledge of adolescents regarding sexual reproduction and sexual reproductive health services; the positivist paradigm was used.

The second paradigm which was the interpretive paradigm was used to guide the inquiry. This paradigm perceives the social world as a process created by individuals. The proponents of this paradigm believe that the truth lies with the individual and therefore data was collected qualitatively (Paudel, 2005). To achieve this, Focus Group Discussions (FGD) were used to address the remaining objectives which were:

- To explore the perceptions of adolescents towards the current sexual reproductive health services in Botswana?
- To assess the level of utilization of the sexual reproductive health services by adolescents.
- To identify the limiting factors related to ineffective utilization of the existing sexual reproductive health services.
- To identify enabling factors contributing to effective utilization of the existing sexual reproductive health services.

3.2 The Design

A non-experimental descriptive exploratory design was used for this study to explore and describe the study variables of interest using quantitative and qualitative methods. Since the paradigms usually influence the research design, the type of design aligned with the positivistic paradigm is the quantitative approach, and the qualitative research is aligned with interpretive approach. Polit and Beck, (2008) explains that data analysis for a positivistic approach follows an established plan and structure to collect the required information. Polit and Beck, (2008), the quantitative design is either experimental or none experimental. In this study a non experimental descriptive survey that aims to establish the level of knowledge of sexual reproduction and sexual reproductive health in rural Botswana was used.

3.3 The Study Setting

The study was conducted in the Community Junior Secondary Schools in Tutume village in Tutume Sub-District. Tutume Sub-district falls under the administration of the central district which is one of the 10 districts in Botswana. It covers an area of several hundred square meters with a population of about 7,194 in 2001 (Brye, 2007). Tutume Village is a peri-urban village located about 100 km northwest of the city of Francistown which is the second largest city in Botswana. This peri- urban village also is located about 40 km from the southern border of Zimbabwe. (Refer to annexure 2 for Map of Botswana and Tutume Sub-district) This setting has been purposively selected as it was easily accessible for the researcher.

3.3.1 Administration

Tutume village serves as an administrative seat for both the traditional and the Modern administration. Although the village has modern facilities like the hospital, several retail shops, clinics and several schools, it is predominantly rural with the local people living a rural life which is dependable on arable farming. Disputes can be solved at the traditional area known as the "Kgotla" under customary law or at the magistrate office under modern judiciary system. The majority of local people are not working except for those who work in towns. On the other hand the village of Tutume houses several government offices, a primary Hospital, several primary schools and 3 clinics, a senior secondary school, two community Junior Secondary Schools and several retail outlets.

As a sub-district Tutume village serves the surrounding smaller villages such as Nkange, Maitengwe, Sebina, Goshwe and others which have schools and clinics of their own.

The reason for choosing this Junior Secondary School is it's convenient for the researcher in terms of accessibility. It is also easily accessible by road and it is situated in a rural village. Further, it is envisaged that there will be no logistical problems of accessibility or language barriers for the researcher.

3.4 The Study Population

For the purpose of this study, the study population referred to all adolescents who were within the age category of 12 to 19 years and attending community junior secondary School. The establishments register 2007-2009 of the school showed that the current enrolment was

approximately 690 students attending Denjebuya Community Junior Secondary School with approximately equal numbers of males and females.

3.5 PROCEDURE FOR QUANTITATIVE METHODS

3.5.1 Sampling

Estimating the sample size for those participants who participated in the quantitative aspect of this study, a sample size calculation by Katzenellenbogen, Joubert and Abdool- Karim, (1997) was used.

The following population estimates were factored in. A precision error of 10% (0.10) was used, the implication is that at a 95% confidence interval, will not fall further than 10 of the proportion (that is the Standard Deviation). As there has been empirical evidence regarding SRH and adolescents in Botswana, there are no studies that report on the proportion of adolescents affected by the poor utilization and other related health issues around SRH, therefore a proportion of 50% was used. This notion is supported by Katzenellenbogen, (1997) who states that when the proportion or average (mean) of the true population presenting with the outcome variable is not known, an estimate proportion of 0.5 shall be used. Using these estimates and the following formula, a sample of 96 was derived.

$$n = \frac{z^2 pq}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(630)^2}$$

$$= 96$$

This reflected the desired sample, however due to issues around ethical consent for adolescents a sample size of 50-55 would have been deemed adequate in light of doing the required data analysis with 80% power (i.e. the Standard Error) (Kirkwood & Stern, 2005). Probability, simple random sampling was used to select participants. The class registers formed the sampling frame. Participants were randomly selected using a table of random numbers. The sampled participants were given an information sheet and an informed consent document which had to be approved by their parent or guardian. If consent was not received, the same procedure was used to sample another student from the sampling frame. Eventually 80 participants were selected to answer the question in view of the above explanation and the time constraint. Out of the 80 questionnaires only 76 were legible for analysis.

The following inclusion criteria was used to select the subjects

- A student whose age falls within 12 and 19 years.
- Parents have signed a consent form

3.5.2 Data Collection Instrument

To assess the level of knowledge of adolescents regarding sexual reproduction and sexual reproductive health, a self-reported instrument containing 5 sections was developed using the Cleland, Ingham, and Stone, (2004) core questions. These questions were adapted from the Cleland et al, (2004) core survey questionnaires which are used for assessing adolescent's reproductive knowledge. (See Annexure 3 for Self Report Instrument). The instrument contained 5 sections, assessing the demographics profile of the participants, sources of knowledge for sexual reproduction, core knowledge regarding sexual reproduction, knowledge on contraception

and knowledge on HIV/and STIs. Except for the demographic data gender and the sources of knowledge for adolescents, data was basically ordinal in nature as the scores were categorized and ranked.

3.5.3 Data Collection Procedure

Once the students and the teachers had been briefed the researcher distributed a letter of consent to a total of 100 sampled participants who were requested to bring them signed by parents or guardians. The procedure had to be repeated 3 times before reaching an adequate (80) sample size because very few participants were returning the signed consent forms. The researcher then met those 80 participants who had returned the signed consent forms for further clarification. These meeting were held in a classroom where they eventually answered the questionnaire. This was done so that further explanations could be given in order to make sure that everyone was clear of what was expected and would participate on their own freewill. They were advised not to write their names on the questionnaire.

3.5.4 Validity and Reliability

The validity of the self reported instrument was assessed initially using content validity where the objective was assessed against the items in the instrument. (See Annexure 1). To assess the reliability, specifically the stability of the instrument, a pilot study was conducted among seven participants in the same school. Following the pilot study by the seven participants the instrument showed no need for structural adjustments, there were no ambiguities and the students had answered the questions appropriately. The seven learners consisted of two students from

form 1, three from form 2 and two students from form 3. The names of the seven students were then removed from the class registers so that they would not be used in the actual study.

3.5.5 Data Analysis and Data Management of Quantitative Data:

Polit and Beck, (2008) states that the purpose of data analysis is to organize and provide structure to and get meaning from the researched data. The questionnaires obtained from the participants were scrutinized for completeness and illegibility. No interference such as summarization, correction or grammar corrections was attempted. All raw data was assessed for erroneous data; data was then captured on the Statistical Package for Social Sciences Version 15.0. (SPSS 15.0) Frequency distributions, means and Standard Deviations were generated to assess the distribution of the data and where the average knowledge score lay in relation to demographic variables such as age, gender and educational level in school. Descriptive and non-parametric statistics in the form of a measure of central tendency (i.e. means, standard deviations and range) and Kruskall- Wallis and Mann - Whitney U tests were used to further describe the sample for relationships (similarities or differences between the independent and dependent variables), that is between knowledge scores on the various aspects such as HIV or SRH and demographic variables.

3.6 PROCEDURE FOR QUALITATIVE METHOD

3.6.1 Sampling

Non probability sampling technique was used to choose a convenient sample. In non probability sampling the sampling elements are chosen from the population by non random methods such as

convenient or purposive sampling (Brink, 2006). Burns & Grove, (2005) states the findings from the qualitative results cannot be generalized to the large population since it usually the opinions of a few individuals who may not be representative of the entire population. Convenient sampling was used. The technique is controlled by the researcher regarding subjects that are more suited for the study phenomena or who are fully conversant with the question at hand (Brink, 2006). The method is usually more useful in qualitative study because the researcher cannot determine the number of participants to be interviewed but will continue sampling until data saturation has been reached. Qualitative studies typically focus on relatively small samples purposefully selected because the researcher is concerned with information richness and not representation (Patton, 1990). Thirty adolescents from across all the three levels were selected but only 14 parental responses were received. These were then divided into two groups of focus group discussion by age: one consisting of 6 adolescents of ages 13 to 14 was grouped together while the remaining adolescents of ages 15+ were put together. Only those participants whose parents had signed a consent form were used. The researcher could not continue sampling for more participants to reach data saturation due to the time limitations. Only 14 students were used.

3.6.2 Data Collection Instrument

A semi structured interview guide was developed using the core questionnaire by Cleland et al., (2004) and this was used as a guide by the researcher during the FGD. The Cleland guide is designed for assessing adolescent's perceptions, and behaviors regarding sexual reproductive health and services. The researcher was free to seek clarifications and to follow issues through in order to obtain maximum information from the participants (Murrell, 1998).

3.6.3 Data Collection Procedure

Before the actual data collection was conducted the researcher held meetings with the school head and two heads of departments so that the two heads of departments could inform their colleagues. The meeting was meant to explain the nature of the study and seek permission. The researcher then held a meeting with the entire student body in order to introduce self and explain the purpose of the study. The purpose of this meeting was also to clear up potential areas of misunderstanding and to gain cooperation of both the staff and the participants.

Two focus group discussions lasting about 45 to 60 minutes were held with two different groups of about 8 participants of ages 13-14 and 6 participants of 15+. Participants from each of the three levels of study were represented. The FGD was guided by the focus group discussion guide but the researcher was able to probe and seek for clarifications where necessary. (See Annexure 3 for FGD Guide). The Health Belief Model guided the development of the instrument for focus group discussions and this was used as the template.

The discussions were directed by the researcher and the participants permission to record the proceeding was obtained from the participants at the beggining of each discussion. The focus group discussions were conducted in both English and Setswana, since they are both official languages of the country. Then the interviews were transcribed in English. At the end of each FGD the researcher made notes of a dynamics of the FGD as part of her field notes, paying attention to non-verbal responses of the participants as well as the group dynamics and communication patterns of the participants (Burns & Grove, (2005).

3.6.4 Academic Rigor Qualitative Data

Trustworthiness of the data was ensured by doing member check and peer checking (where a colleague experienced in qualitative data analysis was asked to re analyze the data (Rolfe, 2004). In this study the data was analyzed by both researchers, i.e. the student and the supervisor.

3.6.4.1 Transferability:

Due to the nature of the data collected, it was not the intension of the researcher to generalize the results of the study, but the results may be transferred to a different context if the other researcher thinks it is applicable.

3.6.5 Data Management

At the beginning of the interview verbal permission was sought from the participants to audio tape the discussion for the purposes of transcribing later. Data was then collected and taped with the consent of the participants and then it was transcribed verbatim (See Annexure 7). Data was cleaned up and rearrange, then the significant statements were identified, these were then aligned to the Health Belief Model. The statements were categorized according to the components of the Health Belief Model namely perceived susceptibility, perceived barriers/ benefits and perceived seriousness. The next step was to cluster the statements according to the broad areas of the conceptual framework which are individual factors, modifying factors and likelihood of change. Each of these perceptions individually and in combination can be used to explain health behavior. (Jones & Bartlett publishers, 2008) from these clusters emerging themes were drawn for discussion.

3.7 QUALITATIVE DATA ANALYSIS

According to Morse and Field, (1995) qualitative research analysis is a process of fitting data together, pointing out the hidden meanings and showing links and attributes. Data from the FGD was audio- taped with the permission of the participants. The taped data were transcribed verbatim. (See annexure 7) The captured data was then analyzed using thematic analysis. Thematic analysis is highly deductive. When this type of analysis is used, data collection and analysis happen at the same time and as themes emerge they are analyzed (Polit & Beck, 2008). During the analysis data from different participants was analyzed until there were no more new themes emerging (Burns & Grove, 2005). The statements from the transcript were categorized according to the components of the health belief model. This was done till no more themes were emerging from the statements. The Health Belief Model guided the development of the instrument for focus group discussions and this was used as the template. Further to this deductive content analysis was used to make meaning and sense of the data.

The following constructs from the Health Belief Model and the constructs therein were used to discuss and interpret data. (See annexure 6 for table of data analysis)

Perceived susceptibility: perceived susceptibility in this study referred to adolescent's susceptibility to HIV and Sexually transmitted disease and unplanned pregnancy. The assumption of the model is that if they perceive themselves as being susceptible they will take action to prevent exposure to all the risks associated with unprotected sex. (See research question 2.)

Perceived threats/severity: when adolescents understand the risks posed by failure to utilize the sexual reproductive health services, they are more likely to improve the utilization of the services

in order to minimize the threats posed by the behaviors of not attending the SRH services. The threats include unintended pregnancies, HIV and other sexually transmitted infections, failure to complete education etc. (See research question 3.)

Perceived benefits barriers: when adolescents believe that the use of sexual reproductive health services can bring some benefits such as unplanned pregnancy, contracting HIV and other STIs, they are able to identify and weigh the benefits against the barriers which may be their personal prejudices towards the service, nurses' attitudes, fear and stigma associated with visiting the services. They would also realize that pregnancy, HIV infection and stigma associated with teenage pregnancy outweigh the barriers. (See research question 2 and 4)

The qualitative data seeks to address the following objectives: objective two, three, and five (see page 10, chapter 1 for full objectives): In responding to these objectives an interview guide was used with the following subheadings. Utilization, limiting factors, enabling factors, perceptions of the service and perceived susceptibility (see annexure 3)

3.8 ETHICAL CONSIDERATIONS

In nursing research, researchers often use human beings as subjects and it is necessary that their rights are protected Polit and Beck, (2008). The following were taken into consideration: confidentiality, privacy, achieving accurate inclusions and exclusions of participants (Mouton, 2001). These were achieved through discussions with both the teachers and the participants to explain the purpose of the study and the need for them to cooperate. They were advised that no names should be written on the answer sheet. Written consent was also sought from parents/guardians as young adolescents were deemed not to able to consent for themselves.

3.8.1 Permission to conduct the study

Before the study was conducted permission was obtained from the ethics committee of the University of Kwa-Zulu Natal, the Botswana Research Unit in the Ministry of Health and also from the school understudy. Permission was sought through a letter explaining the purpose of the study. (See annexure 8, 9, 10, 11) for permission letters.

3.8.2 Informed consent

Since the adolescents have no contractual capacity because of their age consent was sought from the parents and guardians to allow their children participating in the study. This was achieved through a letter written to the parents explaining the purpose of the study, (see annexure 5) the letters were dispensed through the principal's office informing the parents about the researcher's presence in the school and explaining the purpose of the study. Then the participants were given letters to give to their parents to sign if they allowed their children to participate. Only those with signed consent were involved. Adolescents taking part in the study were also be given consent in writing so that they will know that participation is voluntary. (See annexure 4)

3.8.3 Confidentiality

For the sake of confidentiality the participants were informed of their right to participate and to withdraw at any time of the study. They were also asked not to write names so that the researcher can be able to treat the information with the highest level of confidentiality. The tapes were kept only by the researcher and after the study the information were erased.

CHAPTER 4:

4.1 PRESENTATION OF QUANTITATIVE RESULTS

4.1 2 Demographic Data

The gender distribution of the sample showed that more than two thirds (i.e. n= 58, (76.3%), were females and 18 (23.7%) were males. The average age of the participant was 15 years and the youngest participant was 12 and the oldest was 17 years. Twenty eight (36.8%) of the sample was between the age group 12- 14 years; 46 (60.2%) were between the age group 15- 16 years and only two (2.6%) participants were over 17 years of age. Participants were sampled from the community Junior Secondary School and in this sample; participants were represented of all the three levels of education in a junior secondary school. A junior secondary school is an entry level to secondary education in Botswana. It consists of three years of learning before one progress to senior secondary level. In terms of the distribution by level of education; 26(34%) participants were from form 1, 21(27.6%) were from form 2 and 29(38.1%) were from form 3. The demographic profile of the sample is presented in table 1

Table 1: Demographic Description of Sample

Variable	variable attribute	Frequency	Percentage
Gender	Female	58	76.3
	Males	18	23.7
Level of education	Form 1	26	34.2
	Form 2	21	27.6
	Form 3	29	38.2
Age group	12- 14	28	36.8
	15- 16	46	60.2
	17+	2	2.6
Mean age	15 years		
Range	12-17 years		
Standard Deviation	0.984		

4.1.2 Sources of knowledge on sexual reproduction

The different sources of knowledge for sexual reproduction and sexual reproductive health services were assessed through seven questions (See Appendix 4, Section B)

Teachers play a key role in imparting knowledge about different issues concerning sexual reproduction. In this study participants reported that the main source of information was provided primarily by the teacher, that is n=58(76.3%) reported receiving information on puberty from the teacher and n=72(94.7%) reported receiving information on reproduction from the teacher. Only nine participants (11.8%) reported receiving information regarding sexual reproduction and sexual reproductive health services from their parents, and only 2 (2.6%) of the participants had received the information from nurses and peers. None of the participants reported receiving information regarding the reproduction system from parents, sibling or media sources. There was a very low response rate to the item that established where participants would have preferred to have learnt about sexual reproduction that is 13 out of 76 participants (17.1%). Of the 13 participants 8(61.5%) indicated that they would have preferred to learn about sexual reproduction from parents. Although 65(85.5%) indicated that they were getting lessons on sexual reproduction in the school, 61(80.3%) still wanted more lessons. Forty six participants attempted the item that asked them to explain which aspects of the lessons were beneficial to them. And the following results were obtained

1. Puberty and reproduction n=21(27.6%)

2. Contraception n=21 (21.1%)

3. Sexually transmitted disease n=7(9.2%)

4. Others n=2 (2.6%)

Participants were further asked if they knew what services were currently being offered at the local clinic. Fifty four out of 76 participants responded to this question and n=38 (70.3 %) of the respondents knew what type of services were being offered at their local community clinic and

could mention at least 1 service being offered at the clinic. On the other hand n=16(29.6 %) participants reported not knowing what type of services were being offered at their local clinic.

Table 2 shows the responses of participants in terms of the sources of knowledge regarding sexual reproduction and sexual reproductive health services.

Table 2: Showing adolescents sources of knowledge for sexual reproduction

Variables	Variable attribute	Frequency	Percentage
Where do you think you have learnt more about puberty	Teacher	58	76.3
	Parent	9	11.8
	Sibling	4	5.3
	Nurses	3	3.9
	Others	2	2.6
Where would you prefer to have learnt about puberty please specify.	Parents	9	11.8
	Teachers	4	5.3
	Both.	1	1.3
Where did you learn about the reproductive system	Teacher	72	94.7
	Parent	-	-
	Sibling	-	-
	Nurse	2	2.6
	Magazines	-	-
	Others such as peers	2	2.6
Do you get lessons on the reproductive system in school	Yes	65	85.5
	No	11	14.5
	Not sure		
Do you think there should more lessons on this topic	Yes	61	80.3
	No	7	9.2
	Not sure	8	10.5

In addition to these questions the participants were asked to explain what aspects of the lesson were beneficial to them, only n=46(60.5%) out of 76 participants responded and n=21 (27.6) of the total sample stated that they benefited from lessons on puberty and reproduction followed by n=16 (21.1%) who reported that they had benefited from lessons on contraception, n=7(9.2%) participants stated that they had benefited from lessons on STI and only n=2(2.6) mentioned other aspects.

4.1.3 Level of knowledge on sexual reproduction

This dimension on the instrument was made up of 9 items with a possible score of 9 which intended to assess the level of knowledge regarding puberty and reproduction. The mean score of the participants' knowledge on puberty was 6.89, with a standard deviation of 2.01 from the mean. The participants had a high level of knowledge regarding this dimension as evidenced by the summed mean of 7. Non-parametric tests were used to assess the relationship between the level of knowledge of puberty and reproduction and the three demographic variables (i.e. gender, level of education age) and there was no significant relationship found. See table 3 for the results of the test.

Table 3: Non-parametric test on knowledge of reproduction and demographic variables.

Demographic variable	Test	Test values		
		P -values	df	Test value
Gender	Mann-Whitney U test	0.220	-1.266*	425.000
Level of education	Kruskal – Wallis test	0.195	2	3.269
Age	Kruskal – Wallis test	0.414	2	1.763

* Z-score

Figure 1 displays the frequency distribution of levels of score on puberty and reproduction. It is evident that participants had a very high knowledge with regards to level of knowledge on puberty and reproduction, that is n=55(72 %) fell within the category of high marks, 14(18.4) were in the category of medium while only n=7(9.2%) were in the category of low.

Figure 1: Levels of score on puberty and reproduction

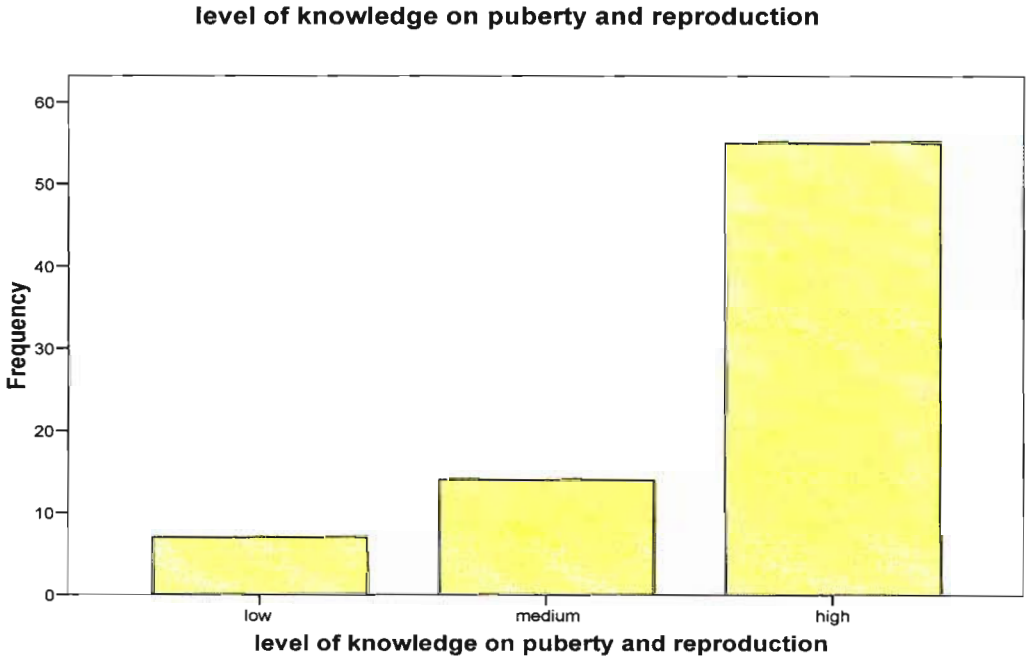


Figure 2 shows that even though males were underrepresented in the sample, n=18(23.6%) they still showed a high level of knowledge regarding puberty and reproduction. Even though the graph shows a slight difference between the scores of males and females this was not found to be statistically significant. Persons Chi square was used to establish these differences and it yielded a non significant value 0.527, degree of freedom was 2 while the significance was 0.768

Figure 2: Knowledge on puberty and reproduction and gender

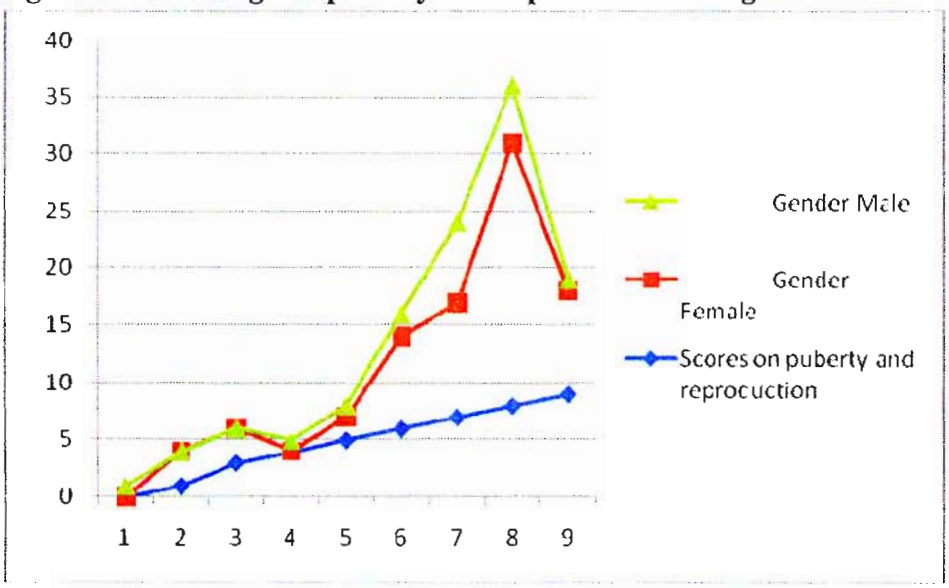


Table 4 provides information about the variables that were used to establish the knowledge on the above mentioned questions. Here the sample size equals to 75 as one respondent did not answer the question n=62(81%) of the participants correctly give the right option of 28 days for a woman's monthly cycle. Thirty (39.5 %) could accurately state that a woman was likely to fall pregnant during the mid cycle this is in contrast with the 81% who knew that an average woman's cycle is 28 days. Sixty nine (90.8%) of the participants knew that a woman would not stop growing after sex. Table 4 describes these results.

Table 4: Selected responses related to Knowledge on Puberty and Reproduction

Variable atribute	Frequency	Percentage
What is the avarage cycle of a womans period	62	81.6
When is a woman likely to fall pregnant	30	39.5
Does a woman stop growing after sex	69	90.8

In order to assess the knowledge of puberty, participants were asked to list any 3 signs of puberty in both males and females concerning puberty. Seventy-one (93.4%) were able to give at least one correct sign of puberty in females, and n=32(46.5) %) could mention three correct signs of puberty in males. Sixty nine n=69(90.7) could mention at least 3 correct signs of puberty in boys while thirty five (46.5%) could mention three correct signs of puberty in boys. (See Table 5).

Table 5: Signs and symptoms of puberty in girls and boys

Variable	Number Of Correct Sign Of Puberty Mentioned	Frequency	Percentage
Signs of puberty in girls	0	5	6.58
	1	3	10.53
	2	21	38.16
	3	47	61.84
Sign of puberty in boys	0	7	9.21
	1	2	2.63
	2	35	46.5
	3	32	42.1

4.1.4 Knowledge on contraception

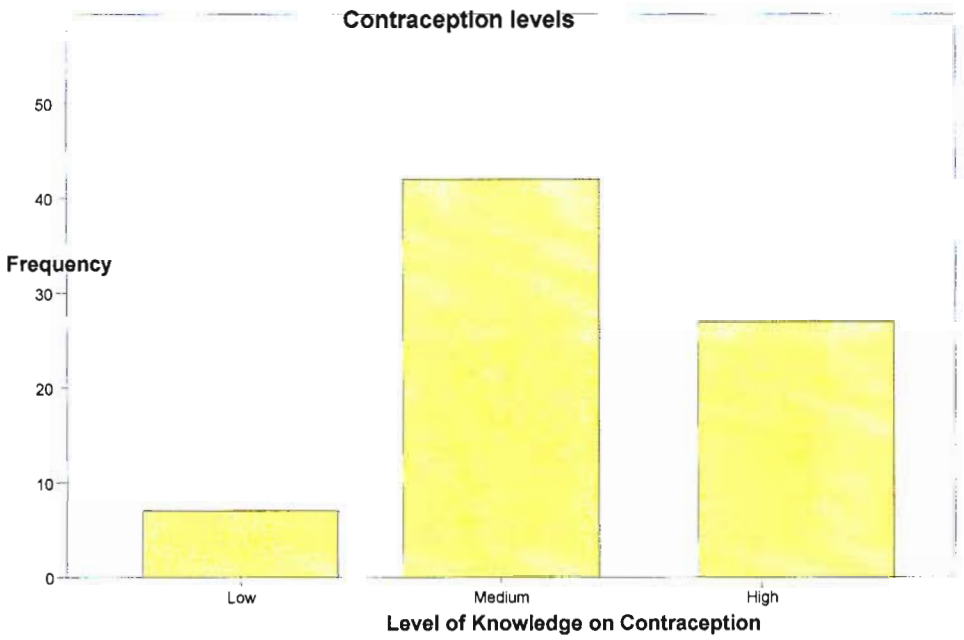
In order to establish the level of knowledge regarding contraception 5 questions were asked. The summed correct responses to these questions could give a possible score of 7. The mean score was 5.82 with a 1.38 standard deviation from the mean. The lowest score was 2 and the highest was 7. The participants showed a high level of knowledge regarding the various methods and aspects of contraception as only n=7(9.2%) scored low and n=42(55.2, %). n=27(35.3%) scored low i.e. when the non parametric test was done to assess the level of knowledge on contraception and demographic variables no significance were found as indicated by the results on table 6

Table 6: Non parametric test on Contraception and demographic variables.

Demographic variable	Test	Test values		
		P –values	df	Test value
Gender	Mann-Whitney u test	467.500	-0.699*	638.500
Level of education	Kruskal – Wallis test	0.672	2	0.795
Age	Kruskal – Wallis test	0.155	2	3.729

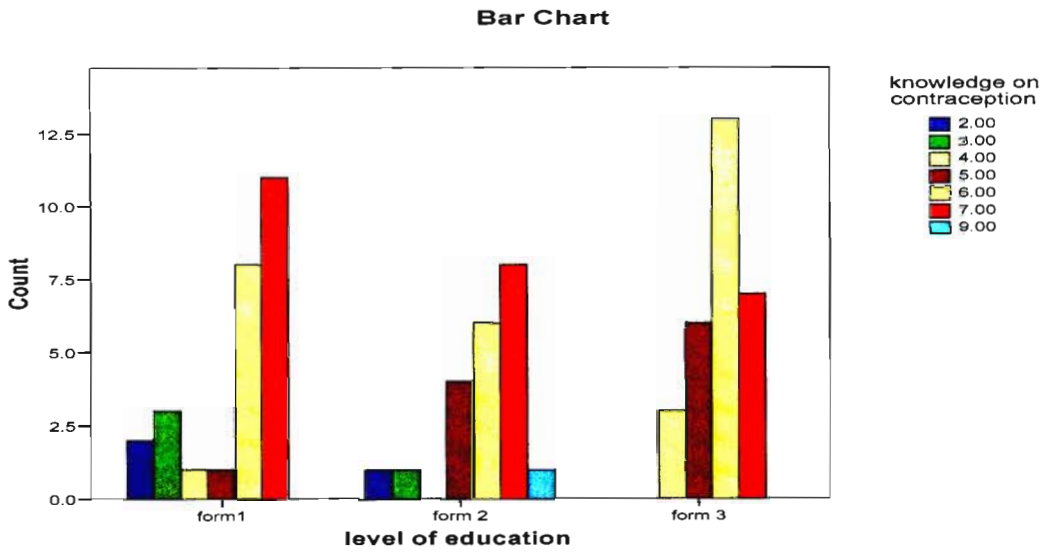
* Z-score

Figure 3: Scores on Level of Knowledge Regarding Contraception



A cross tabulation of the knowledge regarding contraception with the different demographic variables found no significant relationship. In terms of level of education, form 3 participants seemed to have shown a higher levels of knowledge as evidenced by (n 22(75.8%) scoring medium and 7 scored high, but this difference was not significantly so.

Figure 4:A bar chart showing knowledge on Contraception by level of education forms 1,2and *3.*



The most common method mentioned was barrier methods (i.e. n= 54, 69.7%) followed by abstinence n= 47(61.8%). The rhythm method was the least mentioned by n=4(5.3%). There was no significance by gender, level of education and by age and method of family planning. Table 7 illustrates the frequency of participants as per each method of family planning.

Table 7: Methods of Family Planning

Attribute	Frequency	Percentage
Barrier method	54	69.7
Hormonal methods	25	32.9
Intrauterine contraceptive device IUCD)	17	22.4
Rhythm method	4	5.3
Abstinence	47	61.8
Others	24	31.6

Table 8 is a summary of the responses on knowledge about condoms and condom use. The views of the participants as reflected in table 10 which reveals an overall high knowledge on condom and condom use. n=68(89.5%) agreed that condoms can prevent pregnancy, however n=32 wrongly believe that condoms can disappear inside a woman. n=62(81.6%) believed that condoms can prevent pregnancy while n=62(81.5%) knew that a condom cannot be used twice.

Table 8: Knowledge on condom use

Variable	**Attribute**	**Frequency**	**Percentage**
Can condoms prevent pregnancy	Yes	68	89.5
	No	8	10.5
Can condoms disappear inside a woman	Yes	32	22.4
	No	44	57.8
Do you believe that condoms Can protect against HIV	Yes	62	81.6
	No	14	18.4
Do you believe that condoms can be used twice?	Yes	10	13.2
	No	62	81.5

Table 9 is a summary of scores on condom use by age range. There table reflects that participants had a good knowledge of condom and its use. This is evidenced by high scores of all the age ranges for the different questions (see table 9).

Table 9: summarizes the respondent's knowledge on condom use by age.

Variable	Age	Yes	No
Do you believe condoms can prevent pregnancy	12-14	26	2
	15-16	40	7
	17+	2	0
Do you believe condoms can prevent HIV	12-14	22	0
	15-16	38	7
	17+	2	0
Do you believe condoms can be used twice	12-14	4	25
	15-16	6	39
	17+	0	2
Do you believe condoms can disappear inside a woman	12-14	15	14
	15-16	16	29
	17+	1	1

4.1.5 Knowledge on HIV/STI

In order to assess adolescents' level of knowledge regarding HIV/STI several questions were asked and the results were summarized in figure 4. Figure 4 is a summary of the questions about the level of knowledge regarding HIV and STIs. The possible score was 12 from the sample. The mean score was 5.27 with a standard deviation 2.5, the minimum score was 1 and the

maximum score was 12 (range 12-1). The overall picture is that participants' knowledge on HIV/STI is medium as reflected by the 44.7% scoring medium while only 43.3% scored medium and 14.9% scored high marks.

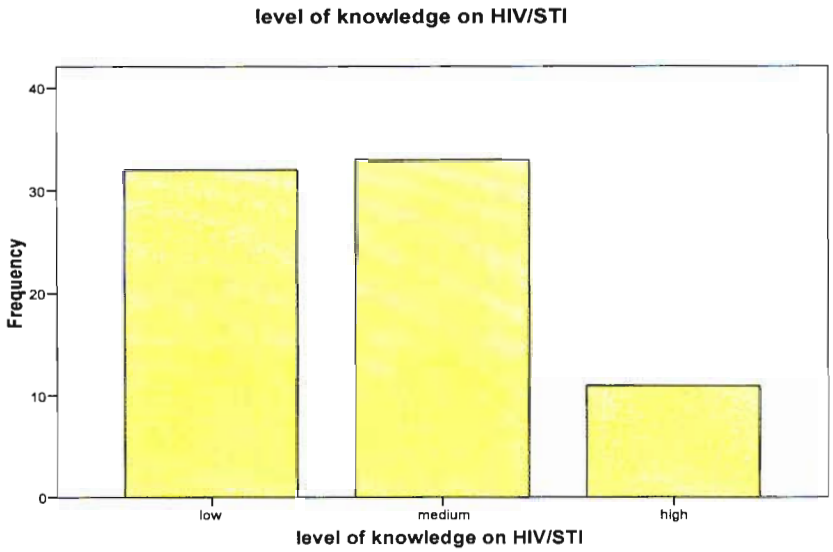
Statistically there were no differences in the level of knowledge regarding STI/STI. This was established through the Kruskal- Wallis test of significance which yielded no significant values (see table 10)

Table: 10 Non parametric tests on knowledge of HIV and STI

Demographic variable	Test	**Test values**		
		P –values	df	Test value
Gender	Mann-Whitney u test	0.112	-1.589*	393.000
Level of education	Kruskal – Wallis test	0.383	2	1.919
Age	Kruskal – Wallis test	o.321	2	2.274

* Z-score

Figure 5 scores on level of knowledge regarding HIV/ STI.



Seven questions were asked to establish the level of knowledge. When participants were asked to mention ways in which one could get HIV the following responses were yielded.

The most frequently mentioned means of getting HIV was unprotected sex by n = 33(43, 4%) of the participants followed by1n=8(10.5% who mentioned sharing of needles, n=7 9.2% mentioned body fluids and n=2 (2.6%) mentioned mother to child transmission (see table 12 for results).

Table 11: Ways of getting HIV

Variable	Frequency	Percentage
Unprotected Sex	33	43.4
Sharing Of Needles	8	10.5
Body Fluids	7	9.2
Mother To Child Transmission	2	2.6

Furthermore the participants' knowledge on HIV was explored on whether AIDS could be cured. The responses as per table 13 shows that n=60(78.9%) knew that AIDS could not be cured while n=57(75%) knew that an HIV infected person can still look healthy. The third option was only attempted by n=33 participants and 28 out of the 33 which is 36.8% of the total sample believed that condoms could reduce the risk of HIV

Table 12: Summarizes the Responses to questions on HIV.

Variable	**Attributes**	**frequency**	**Percentage**
Can AIDS be cured	Yes	16	21.1
	no	60	78.9
Can an HIV infected person look healthy	yes	57	75
	No	19	25
Does the condom reduce the risk of HIV	yes	28	36.8
	no	5	

In addition to the above the following information on STI participants were asked to state any 2 signs of STI that they knew and any 3 signs of STI for both men and women. The results are outlined in table 14

Table 13: Summary of scores on signs of STI and the frequency of participants who mentioned it.

Variable	Type of STI mentioned	frequency	percentage
(i) Mention any 2 sexually transmitted diseases you know	0	5	6.58
	1	23	30.26
	2	44	57.89
	3	2	2.63
	4	2	2.63
(ii) Mention any 2 sign of STI in women	0	46	60.53
	1	16	21.05
	2	13	17.11
	3	1	1.32
(iii) Mention any 2 sign of STI in men	0	50	65.79
	1	17	22.37
	2	9	11.84

Table 13 above summarizes the knowledge on sexually transmitted diseases by the participants and it is reflected that 61(80.2%) were able to give at least 1 type of STI and 30(39.4%) were

able to give at least one correct sign of sexually transmitted disease found in women. While 50 (65.7%) were not able to correctly mention any correct sign of sexual transmitted disease in men.

4.1.5 Conclusion of quantitative findings

The analysis from this study on adolescents in Tutume village revealed that adolescents have adequate knowledge on matters relating sexual reproduction. The study highlighted that adolescents' source of information is primarily the teacher with very few participants getting this brand of information from parents and a very insignificant number getting the information from the media, nurses and siblings or even peers.

Both boys and girls showed no significant differences in the scores concerning knowledge on puberty, contraception and HIV/STI. However there was a drop in the mean score regarding the scores on HIV/STI .and a high standard deviation of 5.82 in relation to the mean score when it came to knowledge on HIV/STIs.

4.2 PRESENTATION OF QUALITATIVE FINDINGS

4.2.1 Introduction

A qualitative research design which was used to collect this data focuses on the subjective feelings of the individuals involved about the topic under discussion. (Mouton, 2001). The qualitative method was deemed appropriate for this type of study so as to get in-depth information from the participants. The presentation of the results will elaborate on the demographics of the participants and the categories as per the interview guide and the themes

that emerged from these categories. Verbatim quotations from the transcribed interview will be included.

4.2.2 Sample description:

The total number of the two focus group discussions was 14 with 6 adolescents in the older adolescents (see table 1) and 8 in the younger adolescents (see table 2). Participants were selected from the form two and three classes as they were thought to be well conversant with the issues of sexual reproduction. This sample was deemed adequate as supported by Polit and Beck, (2008) who states that 5- 15 members per group are adequate. The interviews lasted for 45 to 60 minutes and mostly depended on when saturation had been reached.

4.2.3 Demographics of adolescents in focus group discussion

Table 14 represents members of the 1st focus group held on the 4th of August, 2009 at Denjebuya community junior secondary school with senior adolescents

Table 14: Focus group 1 older adolescents (age group 15 to 17)

Pseudo name	Age	Gender
Billy	16	Male
John	17	Male
Mercy	16	Female
Botho	15	female
Joy	16	Female
Thabo	16	Male

Table 2 represents the 1st focus group held on the 4th of August, 2009 at Denjebuya community junior secondary school with junior adolescents

Table 15: Focus group 2 young adolescents (13 to 14)

Pseudo name	Age	Gender
David	13	Male
Sadi	13	Female
Michael	14	Male
Bogadi	14	Female
Jack	14	Male
Mosadi	14	Female
Aggie	14	Female
Thabang	13	Male

4.2.4 Presentation of categories

4.2.4.1 Related Objective: To establish the level of utilization of the existing sexual reproductive health services in Botswana.

CATEGORY 1: Utilization of the health services

When participants were asked about their level of utilization of the health service or sexual reproductive health service at their local clinic, participants verbalized different view about their use of health services. Some stated that they only use the service for curative care while others stated that they do not use the service at all as they felt that the service offered the same

information as from other sources such as the media or they had no need to visit the service. This is evidenced in the extracts below.

"I only attend clinic when I am sick" (Billy-FGD 1)

"Yes we only go there when we are sick." (John FGD 1)

"I don't think I need the clinic as they teach us this thing on TV." (Mercy FDG2)

"I never fall sick so I never attend the clinic." (Thabang FDG 2)

Sub-theme 1: Perceived norms

Researcher: do you visit the clinic for family planning services?

Under utilization was also related to subjective norms related to age and culture. The participants noted that their perceived subjective norms regarding readiness to utilize sexual reproductive health service were their own barrier to utilization. The following extracts below demonstrate this perceived norm.

"Because we have not started thinking of those things." (Sex and family planning (Joy FDG1)

"I feel I am too young to be thinking about those things." (sex and family planning) (Joy FDG 2)

Conceptually this subtheme can also be related to modifying factors, as many participants noted their age, especially in terms of them being too young to access such SRH services. This is noted in the extracts below.

"I ask myself what nurses will think of me being so young." (Boy FDG1)

"I feel I am too young to be thinking about those things." (Aggie FDG1)

4.2.4.2. Related Objective: To determine the limiting factors to effective utilization of the sexual reproductive health services

CATEGORY 2: limiting factors

In an effort to establish the limiting factors to effective utilization of the Sexual Reproductive Health Services, several subthemes emerged. Below are some of them.

Sub-theme 1 provider attitudes

A common limiting factor that was expressed by the participants was their perceived barrier of the health care providers' judgmental reaction or attitude. Further to this, cultural norms and age as a modifying factor were evidently noted as a barrier, some participants referred to sexual activities as a "bad thing" highlighting the sensitivity and cultural taboo that is associated with SRH; as well as making reference to themselves as being too young despite the fact that the participants who expressed this were from the FGD 1 age group 13 to 14. This is noted in the extracts below

'"even if one wanted to go to the clinic the nurses will ask you why you want to start bad things at such an early age" (Bogadi FDG1)

"The nurses will wonder if I have started and they will lecture me" (David FDG1)

Sub-theme 2: Lack of Motivation or Openness from Authority Figures

One of the limiting factors to adolescents' utilization of the services is the lack of motivation from both parents and teachers. One of the respondents summed it in the following manner.

"The other reason is that they teach us about these things but they do not encourage us to translate it into real life like we can actually go to the clinic and seek clarifications and services." (Mosadi FDG1)

"Our parents do not want to talk to us about sexual matters e.g. in my case I have tried to talk to my mother but she simply ignores me and that can put me at risk Our parents do not want to talk to us about sexual matters" (Thabang FDG 1)

Sub-theme 3 Negative Judgment Related to Adolescents Age

Adolescents in this study expressed that some of the limiting factors to their utilization of the services were the fact that they have to attend and access health care from the same place as adults and they usually felt judged for their age and they end up not being able to use the services such as collecting condoms. This is further complicated by the secrecy surrounding sexual activities which makes adolescents shy to collect condoms in the presence of other people. These views are expressed in the following extracts.

"You come to the clinic and adults (both nurses and patients) judge you because we are in the same queue with them, e.g. when they see you colleting condoms they will ask you what you are going to use them for but that should not be the issue they should be happy that you are going to protect yourself. This can really turn you down even if you have started engaging in sexual activities." (Botho FDG 1)

"Some of us are shy and we can't openly be seen at the clinic collecting condoms in front adults as the adults because even if they don't say anything to you they will look at you with that "eye." (Thabo FGD 1)

Subtheme 4 Perceived Lack of Privacy

Adolescents are not able to talk about sexual issues with their parents, so they would like their visit to the clinic to be a secret from their parents because they fear that their parents would think they have started indulging in sexual activities, because nurses in the community might be able

to chat with their parents they do not feel that their secret will be safe with them. Adolescents are also intimidated by the possibility that adults who might know their parents will see them at the clinic and probably go and tell them that they were at the clinic seeking SRH services. Further more parents are also perceived to be judgmental as they are said to be looking at adolescents with a disapproving look when queuing with them for SRH services. The following extract expresses these views.

"I also fear a situation where nurses will go and tell my parents that I have started doing things. Nurses have no privacy they will report to your mother when they saw you picking condoms or when they see you with your mother they will say so this is your child who came to the clinic for such and such things." (Jack FGD 2)

"As young people we really value our privacy for instance if we visit the clinic and I want to seek the education about sexual health services and STI the elders who are present at the clinic may tell my mother that I have "started". And they look at you with that "eye" that someone has mentioned (Mercy" FGD1)

Subtheme 5 Health Care Providers' Age

The health care provider's age was expressed as a deterrent to adolescents experienced from visiting the clinic especially when it comes to issues pertaining to family planning. Adolescents felt that when talking to a nurse who is much older than them they feel like they are talking to their parents at home and they will not be free to say what their real problem is. This is related to cultural norms and practices where young people cannot discuss issues pertaining to sexuality with someone elderly. This is also related to a modifying factor as it is related to both the culture and age of the provider and the recipient. The following statement is supportive of that.

"Age really counts, imagine I leave my mum at home and I have to face another mum at the clinic no! I will not be able to express myself well actually I will think twice before I tell her the true reason for my visit." (John FDG 1)

"The age for me is not a problem but gender is a problem, being a male I would not feel comfortable talking to a female nurse about some of these things". (John FDG1)

Sub-theme 6 Provider's Gender

Some adolescents feel that they are not comfortable talking to a provider of the opposite sex as they feel that they would not be free to express themselves very well. This is also related to cultural norms where children cannot talk to the parent of the opposite sex about sexual health issues. In relation to the model this is perceived as a barrier to effective utilization of the health care services. This was evident in both males and female adolescents.

"As a female I would also like to be helped by a female nurse so she can understand me better." (Aggie FDG2)

"The government should trained doctors in equal numbers so that as patients we can choose who we would prefer to be attended by" (Botho FDG 1)

"The age for me is not a problem but gender is a problem, being a male I would not feel comfortable talking to a female nurse about some of these things." (Billy FDG1)

Sub-theme 7 Communication with Adolescents

The manner in which health care providers communicate with adolescents can enhance or break communications. Adolescents have expressed that they are not comfortable with a provider who is too formal but they would be comfortable with someone who can come to their level and can

understand they way they communicate. They prefer to be addressed in the language that they can identify with, so that they do not feel like they are in a formal discussion. Conceptually this can be related to modifying factors as it is related to age.

"Yes I belief a young nurse who is well trained in communication skills will be better, we don't want someone who speaks adult language we like the adolescent language." (Thabo FGD1)

"Nurses should also be trained to communicate with different age groups and the public should be taught that everyone have the right to privacy." (Mercy FGD1)

4.2.2.3 Objective 1 To Explore The Perceptions of Adolescents Towards the Current Sexual Reproductive Health Services In Botswana?

CATEGORY 3: Perceptions of the Services.

Sub-theme 1 negative perceptions of the services (services are not helpful)

Adolescents perceive the clinic and the services negatively as they feel that the services are not tailored to address their needs in many ways. They related no positive experiences of their visit to the clinic and therefore believe that other organizations can actually help them better than the clinic. Further on adolescents expressed the feeling that the clinic does not make an effort to increase awareness of the services they offer other than the curative services. This is how they expressed their views.

"I only recall all the negative incidents at the clinic." (Joy FGD1)

"The clinic does not really help." (Mercy FGD1)

"The clinic itself does not help the youth much but other organization such as nongovernmental organizations and youth organizations do help a lot." (Billy FGD1"

"Yaa the clinic could help but the problem is they don't like sell their product to the people so we don't even know what they do there we don't even know they exist." (Thabo FGD1)

Subtheme 2 Services are Perceived as Slow and the Queues Very Long

Adolescents have stated that they do not have the patience to wait in the long queues and this can act as a barrier to adolescents' use of SRH services. This can be especially problematic as the adolescents will be in the same queue with adults, and that they will be in a hurry to go back to class. The queues are also thought to be worse in the morning and yet nurses don't want to attend to patients in the afternoon.

"Also consider the long queues at the clinic, there are usually long queues at the clinic that can discourage one from going to the clinic." (Billy FGD1)

"Another factor is that of time when you go to the clinic in the morning you find it full but when you go there in the afternoon they are either lazy or too tired to help you. At time it is better to go there in the afternoon." (Mercy FGD1)

Subtheme 3 Inadequate Services

Participants believed that the services at the clinics were also inadequate. Conceptually this is related to perceive benefits as adolescents do not see any benefits in the going to the clinic because of the poor services. Adolescents expectations are not met by the services at the clinic even in the general practice as they do not appreciate the way nurses handle issues like emergencies. The constant absence of the doctor can also pose as a barrier to adolescents' use of the services.

"Like when you visit the clinic with an emergency and the nurses take time to help you and when you are eventually helped to wait for the doctor who may not be coming that day mean while what do you do with the problem." (john FGD1)

"Basically what he said is true, nurses at the clinic usually have their own way to do things, and they think headaches are not serious when we can get things like meningitis that may be fatal" (Botho FGD1)

Sub Theme 4 Health Talks

Adolescents admitted that there are health talks offered at the clinic but the health talks were not benefiting adolescents as they are not tailored to address the issues of the youth. Often they address issues that are general or strictly issues pertaining to adult health issues. Adolescents do not perceive any benefits in attending these health talks. This can be related conceptually to modifying factors as it may determine whether the adolescents would actually go there and listen. This may also determine utilization of the services.

"The health talks could be helpful but they are all inclusive they are not tailored for young people they rather address the larger community." (John FGD1)

"Even the health talks that are given at the clinic are usually about adult things like cervical cancer and other staff it's never about the youth." (Mosadi FGR2)

4.2.4.4 Related Objective: To identify enabling factors contributing to effective utilization of the existing sexual reproductive health services.

CATEGORY 4 Enabling Factors

Subtheme 1 Doctors Attitudes And The Clean Environment.

There were very few enabling factors mentioned as there were more limiting factors brought up. These are related to the modifying factors and they relate mainly to the staff and the clinic environment. Friendly and welcoming attitudes from the doctors can overshadow the rudeness of the nurses, who may otherwise be a deterrent. Furthermore adolescents state that an attractive environment like the cleanliness of the clinics can be a factor that can encourage one to visit the clinics. These are reflected in the following extracts.

"Our clinics and hospitals are very clean as the government has hired people to clean them that can be very encouraging." (John FGR1)

"Even though nurses are rude doctors are very friendly and you don't feel intimidated when talking to them." (BogadiFGR1)

"One of the factors that can attract the adolescents to the service would be when the services are thought to be adolescent friendly since Thabang FGD2)

4.2.4.5 Related objective: to identify adolescents the perceived susceptibility to HIV

Category 5 Perceived Susceptibility to HIV

Researcher: Do you think you can get infected with HIV/pregnant and why?

Participants agreed that they were susceptible to HIV even though these perceptions are low because they expressed very low utilization of sexual health services to get information on prevention. Most of them believe they can control their susceptibility as they state that protection and behavior change can help them to be disease free. When adolescents were asked whether

they can get infected they unanimously agreed that they can get infected especially if they do not protect themselves. This also shows knowledge of condom and protection against HIV.

"When I was growing up I thought AIDS was for older people but now I know better that if I don't protect myself from it I may get infected. (Joy FGD1)

"I know I can get infected but I believe that if you do not engage in sexual activities you may not get infected (Boy FGR1"

'Even me I thought HIV was associated with people who do sex but now I know I can get infected through other means.' (Thabang FGD1)

When adolescents were asked who is more susceptible and why there were mixed responses but the overall impression was that both boys and girls are susceptible to HIV for different reasons such as girls lacking the assertiveness and the ability to say no, their desire for beautiful things in life while boys have been found to be more explorative.

'Girls are more likely to be infected because they have no stand, they are always being proposed to and eventually a man will persuade them to have sex with them even when they are not ready.' (David) FGD2

"I believe males are more likely to be infected than girls as they like to explore things and sex is no exception and in this case it's the boys who are always chasing girls not girls chasing after boys".(Billy FGD1)

" I also believe that girls are more_likely to being infected than boys because when they say "no" the no will just be very thin (not convincing) they don't really express it well and it will lead the man to think they are interested. They can't be bold enough o say no because they are under

pressure to own nice things like cell phones and your friend can add to the pressure by convincing you that it is ok to sleep with a man so he can buy you a phone". (Sadie FGD1)

"Girls are more tempted because they are looking for nice things like cell phones especially when your friends own them, you feel too much pressure and you may end up agreeing to sex so that you get a phone like your friends. At times a girl who is disadvantaged may be exploited by a man with money because she needs basic staff." (Botho FGD1"

"There are males more who are infected because they are the ones who usually go out there to be infected and end up bringing it at home or to the regular girlfriends." (Billy FGD1)

Subtheme:2 Protection against HIV

When adolescents were asked to explain how they can protect themselves from being infected with HIV or falling pregnant the following responses were generated.

"For me behavioral change is the key one should be able to ask yourself if what you are doing is the right thing or not."(John FGD1)

"I think by going to church we can reduce the chances of getting infected since the church preaches abstinence then if we heed that massage we can stay healthy." (Thabo FGD1)

"but for those who can't abstain they should use a condom" (Jack FGD 2)

"my feeling is that the youth should not use a condom but rather abstain what if it breaks and you become pregnant how are you going to explain it to your parents" (Bogadi FGD 2)
"I really believe that abstinence is the way to go for the youth, condoms are not 100% safe and for the youth the "b" of the ABC should not be there as you can be faithful to an infected partner or someone who is not faithful to you." (Thabang FGD 2)

4.2.5 Conclusion

The results from this data has highlighted that adolescents in Tutume village are still faced with a lot of barriers that hinders them from fully accessing the health care facility for a variety of services especially the sexual reproductive health services. Some of the barriers highlighted relate to subjective and cultural norms, provider attitudes, inadequacy of the services and age and gender of the provider. Even though the aim of the study as not to compare it was interesting to find that all adolescents in the study perceived themselves as being susceptible to HIV. On the same breath older adolescents emphasized more that they can protect themselves by changing their behavior since they are intellectually empowered while the younger ones emphasis more on abstinence. This could be related to the fact that older adolescents are not necessarily abstaining.

CHAPTER 5

5.1 DISCUSSION OF QUANTITATIVE FINDINGS

5.1.1 Introduction

The overall purpose of this study was to explore the knowledge, perceptions and behaviors of adolescents towards sexual reproductive health services in Botswana. The discussion of the results will be guided by both the objectives and the conceptual framework. In order to achieve the objectives both the quantitative survey and the qualitative methods were used. A self reported questionnaire was used for the quantitative while the qualitative data was collected by means of two focus group discussions. In this chapter the results presented in chaptr 4 will be discussed under the following subheadings. Demographic information of the participants, sources of knowledge for sexual reproduction, knowledge on puberty and reproduction, knowledge on contraception and knowledge on HIV/STI.

5.1.2 Demographic information

In this study there were 58(76.39% female and 18(23.7%) males bringing the total number of participants to 76 instead of the anticipated 96 participants. The adolescents were asked to volunteer whether they wanted to be sampled to participate in the study or not. Females were showing more responses than males. This probably accounts for the low turn up of the male participants in the study. This scenario is confirmed by a study conducted by Shahjanan and Kabir, (2007) in Bangladesh where they wanted to assess males' willingness to participate in health related studies, they found that males are usually reluctant to participate in sexual health studies. This could probably be attributed to the males' reluctance to participate in the studies.

Participants were sampled from all the three levels of study found in a Community Junior Secondary School in Botswana; that is form 1 through to form 3. The form one to 3 stream constituted the first 3 years of secondary education. It is often referred to as junior certificate. The junior certificate can be equated to standard eight to ten by South African standards. Both males and females of all ages available in the school were represented. The reason was to find out if demographics such as age gender and level f education can have any effect on the phenomena under study.

Adolescent's demographics such as sex age and level of education in this study did not seem to have any bearing on the level of knowledge or in the way both young and older adolescents could discuss issues of sexuality. This is in spite of the fact that some researchers elsewhere found differences in knowledge regarding age. For example studies by Bankole et al., (2008) in Burkina Faso, Ghana, Malawi and Uganda demonstrated that all adolescents possessed high knowledge on contraception and HIV/AIDS but it younger adolescents (12-14 years) were not well vested with knowledge concerning how to protect themselves.

5.1.3 Adolescent's Sources of Knowledge for Sexual Reproductive Health Services

The participants were asked to identify the different sources of knowledge for sexual reproduction and sexual reproductive health services. The aim of this question was to identify areas where adolescents in Tutume were likely to acquire information on sexual reproduction and services.

The study revealed that the most likely source of information on sexual reproduction and sexual reproductive health services was the teacher. 76.3% of the participants had learnt about puberty

from the teacher, (see table 2 48 for different sources of knowledge on puberty and reproduction) this is consistent with some international studies for instance in a study by Somers and Surmann, (2004) where they were looking at adolescents preferences for sources of sex education, the teacher was the most preferred source in that study. This then means that there is need to create awareness of other sources of information available for the youth such as the health care facility, news papers and magazines.

Media also plays a role in disseminating information to adolescents; this could be through television radio print media or internet. Although this is a good practice it becomes a problem when adolescents' cannot clarify issues with someone who is better equipped to do so such as the teacher or the parent (Hess, 2002). However in studies by Somers and Surmann (2004), & Biddlecom et al., (2006) it was found that the media, siblings and peers were the least preferred sources. The notion was also supported when Singh et al., (2006) assessed knowledge on girls in girls only school they found that first source of information regarding menstruation was the mother followed by friends.

Although it is generally believed that parents should talk to their children about sexual matters in reality this is not the case, (Oware – Gyekye, 2005). This has been the findings in this study where only 11.8% had received sexual information from the parents, other studies conducted elsewhere have revealed the same findings e.g. in a study conducted in Delhi India revealed that adolescents' were mostly getting sexual reproduction information from the internet and magazines and not from parents (Mc-Manus & Dhar, 2008).

The results of this study show that even though one would expect nurses, siblings and peers to contribute significantly towards adolescents' knowledge on SRHS this was not case in Tutume village as the above mentioned sources rated very low as sources of information.

While 94.7% of the respondents had learnt about the reproductive system from the teacher, none of the participants had received the information from parents, siblings and magazines. Literature shows that there is very little discussion on sexuality between parents, siblings and adolescents. Egbochuku and Ekanem, (2008) in their study conducted in Nigeria found that parents were not free to discuss sexual matters with adolescents for fear that they might be encouraging them to go out there and try out what they have learnt. Oware-Gyekye, (2005) on the other hand, in a study conducted in Ghana also revealed that due to too much education, modernization and urbanization the extended family which had the responsibility (among others) of teaching young ones about sexual issues has disintegrated. This has left adolescents with no option but to seek information from other sources such as friends, siblings and the media that might not be reliable.

Several studies have shown that adolescents get a lot of information from the media (McManus & Dhar, 2008; Mohammadi et al., 2006; Oware-Gyekye, 2005). However, this was not the case with adolescents in Tutume village. This could be partly attributed to the fact that a lot of adolescents would not have access to television in a rural village. This is in spite of the fact that there is a lot of information in the form of billboards, television and the print media countrywide. The study further shows that parents nurses, siblings and magazines play a low key role in disseminating information to the youth. This is in spite of an observation by Kibombo et al., (2008) who believes that adults have great influence on shaping attitudes and behaviors of the youth, in the conducive setting of the family environment parents influence the opinions and norms of their children. Adolescents have expressed that they would have preferred to have

learnt about sexual matters from parents at home but this was not the case as most of the information was from the teacher.

Adolescents in Tutume agreed that they were receiving lessons about sexual reproduction from school and 85% answered yes and yet when they were asked if they wanted more lessons on this topic 80% answered yes, this could mean that adolescents in the village were not getting enough information on sexual matters, or that they are not happy with the amount or type of information they are receiving from school. The lack of clarity and quality could be a result of the fact that as the Botswana education policy does not give guidelines to the implementation of sex education except that every child has a right to school health programs (Ngomi, 2008).

5.1.4 Participants Knowledge on puberty and reproduction

Participants showed a good level of knowledge in this regard, as evidenced by the summed high mean of 7 for a highest score of 9 and the standard deviation of 2.01. The scores on the level of knowledge regarding puberty and reproduction also showed high level of knowledge as the majority of the participants n=55 (72.4%) scored high marks (see figure 1 on scores on level of knowledge regarding puberty and reproduction) There were no significant differences between the level of knowledge and the demographics of the participants.

Participants have generally shown high levels of knowledge regarding reproduction as majority (81.6%) of participants displayed high knowledge on the menstrual cycle but this knowledge was inconsistent with the knowledge on when a woman is likely to fall pregnant as only n= 30(39.5%) of the participants were able to answer correctly that a woman is likely to fall pregnant mid-cycle. Similarly in a study conducted in Teheran by Mohammadi et al., (2006)

seeking to establish adolescent boys' knowledge on puberty, only 17% of the respondents were aware that pregnancy is likely to occur mid cycle.

Almost all (91%) of participants correctly knew that a woman would not stop growing after sex. Demographics such as gender did not demonstrate any difference in knowledge regarding menstruation (see figure 2). Similar findings were revealed in a study seeking to assess knowledge regarding puberty and menstruation among adolescent girls in India where it was found that 76.0% of the participants knew the duration of the menstrual cycle (Singh et al., 2006).

Still regarding the issue of adolescents' level of knowledge on puberty, participants were asked to mention any signs of puberty in both males and females. 93.4% of the participants were able to give at least one correct sign of puberty in females and 90.7% were able to mention at least one correct sign of puberty in boys. Scores shows no significance in knowledge between boys and girls. (See table 6)

5.1.5 Knowledge on contraception

To assess adolescents' level of knowledge on contraception, 5 questions were asked. (See figure 3 on scores on knowledge on contraception). Adolescents in this study displayed adequate knowledge on contraception. The results were consistent with the findings of a study by Martins, costa-Paiva, Osis J, Neto and Tadini, (2006) in Brazil to establish knowledge on contraceptive methods among adolescent students revealed that adolescents generally have adequate knowledge about contraception. For this study adequate level of knowledge was evident in the high scores by participants in different areas of the question for example Eighty four percent (84%) of the participants were able to mention at least 1 correct method of family planning.

Barrier method was the most commonly mentioned method by both males and females (69.7%) while the rhythm method was the least mentioned (5.3%) (See table 8)

A study by Biddlecom, Guella, Singh, and Zulu, (2006) in four Sub-Saharan countries revealed that adolescents have high awareness of contraception in all the four countries even though the levels varied according to countries. In the study it has been shown that adolescents regardless of gender, age and level of education have adequate amount of knowledge regarding contraception. This is supported by a high mean of 6 out of a score of 7. Similar findings were found in a study performed by the ministry of health-Botswana in collaboration with AYA, PSI, (2001) as the results showed that adolescents do have adequate knowledge about contraception

5.1.6 Knowledge on HIV/STI

Figure 3 shows the overall impression on the scores regarding HIV/STIs. In this figure it is revealed that adolescent has low, to medium knowledge regarding the area of HIV/STI, only 14.5% of the participants scored high. This is low when compared to the levels of scores on other areas. Participants did not show any differences between demographics and level of knowledge regarding HIV/STIs (see table 11). Review of studies show that in a girls only school in India, a study was done to assess knowledge, perception and attitudes of adolescents towards STI/HIV revealed poor knowledge among girls. On the other hand studies in Teheran boys showed a relatively high knowledge on HIV/ STI. In Botswana a similar study was performed by the Ministry of Health (2001), and the results showed that adolescents had an awareness of HIV.

5.1.7 Conclusion

Findings from this study do not differ from other international studies conducted in sub-Saharan Africa and elsewhere. The finding reveals that generally adolescents have knowledge on issues of sexual reproduction and sexual reproductive health services. In view of this one would then assume that the will be good utilization of the SRH services, But this knowledge does not necessarily translate to practices and behaviors as it was discovered that despite the high knowledge adolescents admitted that they do not use the sexual reproductive health services due to several barriers

5.2. DISCUSSION OF QUALITATIVE FINDINGS:

5.2.1 Utilization of the services

In terms of utilization of the services, in this study it was noted by the participants that SRHS were predominately underutilized and in the event of the services being used mainly for curative purposes. Under utilization of the services by adolescents is not a problem unique to adolescents in Tutume. Senderowitz, (1999) has observed that adolescents don't often use existing SRHS for various reasons. Adolescents have advanced several reasons that contribute to the under utilization of the services such as the laws and policies that restrict their access to available services and information. Fear, shame, lack of confidentiality from the providers and age differences has also been mentioned. In this study, the above has also been attributed to under utilization of the SRH services. Some of those perceived barriers shall be discussed below.

5.2.2 Limiting factors or barriers

Perceived norms, it was evident from the extracts and FGD that the adolescents' own subjective norms that was related to culture and social taboo's about sex was their own barrier to accessing SRHS. E.g. when one of the adolescents said "*I ask myself what nurses will think of me being so young" (Boy) FDG1*

A review of the literature shows that studies have highlighted some of the barriers that are faced by adolescents for example, Biddlecom et al., (2006) highlights some of the barriers as being related to social context: eg feelings of shyness, fear, and embarrassment. This notion was supported by the views of the participants who took part in the focus group discussions. They stated that felt that they were too young to go and seek such kind of services; these perceived

feelings of being young were also projected to the service provider who adolescents thought would think them too young to indulge in sexual activities. One of the adolescents actually said

"Even if one wanted to go to the clinic the nurses will ask you why you want to start bad things at such an early age" (Bogadi, FDG1)

Sub-theme 1 provider attitudes

The provider's attitude was frequently mentioned as one of the major deterrent because health care providers were perceived as being rude and judgmental. Similar findings were found by Wood and Jewekes, (2006) where adolescents reported that they were being harassed by the nurses. In the same study adolescents reported being reprimanded by the nurses for various reasons. Further to this Otoo-Oyortey and Serour, (2007) recommends that the provider who works with adolescents should be accommodating and age appropriate for the youth. Senderowitz, (1997) suggests that services providers should be adolescents.

Sub-theme 2: lack of motivation or openness from authority figures

Adolescents in this study felt that the adults did not really encourage them to visit the clinic for sexual reproductive services. The teacher provided them with information but did not reinforce the need to visit the clinic for the services. This could probably be the result of the teachers own subjective norms and cultural taboos regarding sexual matters. These were highlighted in a study by (Kibombo et al., 2008)

Lack of parental discussion also did not help adolescents. If adolescents were able to talk to their parents about issues concerning sexuality then there would be no fear of being seen by parents

and adults at the clinic and this barrier would have been removed. This is how one adolescent put it.

"*Our parents do not want to talk to us about sexual matters e.g in my case I have tried to talk to my mother but she simply ignores me and this can put me at risk. Our parents do not want to talk to us about sexual matters" (Thabang, FDG 1)*

Culture does not allow parents and young people to discuss issues relating to sexual matters, so when adolescents are in need of help they cannot approach their parents for help and guidance (WHO, 2002). Breaking the cultural barriers can assist in facilitating discussion between parents, teachers and adolescents.

Sub-theme 3 negative judgment related to adolescents age

Adolescents in this study experienced negative judgment from the society in relation to their age as they were thought to be too young to be using SRH services. It is generally believed that if one is seen seeking the SRH services it means they are engaging in sexual activities. The findings of this study has been supported by Oware-Gyekye, (2005) states that some of the reasons why adolescents do not use sexual health services is the society usually frowns at those adolescents who use sexual reproductive health services. This frowning is deeply rooted in cultural norms about sexual practices where a visit to the sexual reproductive health services is associated with sexual activities.

Subtheme 4 perceived lack of privacy

Fear of using the services was expressed by adolescents resulting from familiarity of the health care provider and the parents can also be related to the familiarity of community members that

exist in villages which could also be a issue of lack of confidentiality with the adolescent and the health care provider. One of the responded had this to say

"I also fear a situation where nurses will go and tell my parents that I have started doing things Nurses have no privacy they will report to your mother. ....."

This has been explained by Mohammadi et al., (2006) who observed that adolescents are reluctant to seek information from their parents for fear that if their parents get to know about their visit to the clinic they will assume that they are engaging in sexual activity and then they will be viewed with a negative eye.

Sub-theme 5 negative judgment

In relation to the negative judgment adolescents felt that adults pass judgment on them simply because of age. This related to both health care providers and parents.

"You come to the clinic and adults (both nurses and patients) judge you because we are in the same queue with them, e.g. when they see you colleting condoms they will ask you what you are going to use them for but that should not be the issue they should be happy that you are going to protect yourself. This can really turn you down even if you have started engaging in sexual activities" (Botho FDG 1)

The same observation has been made by Senderowitz, (2003). The author states "most societies frowns on teenage sex" it is necessary to make adjustments that will allow adolescents to have a sense of privacy and confidentiality. The author also states that the language should not be threatening or too formal for adolescents.

Subtheme 5 Inadequacy of the services

Some of the reasons why services may be perceived as inadequate could be the attitude of the provider who maybe poorly trained, or because the health facility has run short of supplies (WHO, 2002). Adolescents perceived services as inadequate for many reasons such as long queues, opening times as well as the health talks that are not appropriate to them. This notion is also supported by Dickson-Tetteh cited in Ingwersen, (2001) who found that most of the facilities in southern Africa were not friendly to the youth in relation to the opening times, judgmental staff attitudes and every denying adolescents the services.

5.2.3 Perceptions about the services

In reference to the perceptions about the services adolescents expressed negative feelings about the services as they were thought to be inadequate and not being helpful to the youth; several concerns were raised for these negative perceptions. This has been summed up by Braeken, Otoo-Oyortey and Serour, (2007) in one of her recommendations that the services should be convenient such that youth do not have to face the problems of time and long queues. Adolescents should be allowed to drop in at any time convenient for them. Like when one of the participants actually said:

"The other issue is that of the queue, there are usually long queues at the clinic that can discourage one from going to the clinic." (Billy FGD1)

5.2.4 Enabling factor

The enabling factors would generally refer to friendliness of the facility where the atmosphere is welcoming for the youth such that they don't have to hide and duck from relatives and neighbors. The criteria set by (WHO, 2002) stipulates that "adolescent friendly services will have the qualities required by young people with the best possible standards in public service. Such services are accessible, acceptable and appropriate for adolescents. They are in the right place at the time for the right price and delivered in the right style....." Adolescents in the study did not seem to appreciate the services in light of the above description. Instead they appreciated the fact that the clinic was very clean an the approachable attitude of the doctors.

5.2.5 Perceived susceptibility to HIV

Adolescents in this study unanimously agreed that they were susceptible to HIV, both males and females agreed that they were susceptible in their aggregate for various reasons. However this susceptibility seems low or not taken seriously as the group states that they only generally do not utilize sexual reproductive health services. Their perceived susceptibility did not lead to adequate utilization of the services. It was interesting to realize that despite adolescent's perceived susceptibility they were still not fully utilizing the SRH services.

5.2.6 Conclusion

Several factors are at play that hinders adolescents' utilization of the sexual reproductive health services. These barriers are not insurmountable as they can be solved with simple measures like

change of attitude for both adolescents and the provider. Flexibility when dealing with adolescents in terms of time and approach can go a long way in facilitating effective utilization of the services.

5.3 Overall Conclusion of Study Findings

This study showed that in general, adolescents had adequate knowledge regarding sexual reproduction and sexual health services. The major source of knowledge for adolescents was primarily from the teacher as 74% had learnt about puberty from the teacher and 94% had also learnt about sexual reproduction from the teacher. On the hand, findings from the focus group discussions revealed underutilization of the services which was related to various limitations such as, perceptions of the services and the youth's own perceptions of HIV/ AIDS.

In as much as adolescent are at greater reproductive health risk, (Senderowitz et al., (2003) they are usually reluctant to access sexual reproductive health services. This is related to their of lack of awareness, inadequate information and significant barriers posed by the existing health services, this findings are similar to the study conducted in Uganda by Neema, Mussin and Kibombo, (2004) which showed high knowledge of HIV, contraception and STI, but the high knowledge was not consistent with the behavior as the those sexually active adolescents continued to indulge in risky behaviors. Lou and Chen, (2009) found that sexual knowledge does not directly influence safe sex behaviors, this is consistent with the findings of the FGD where adolescents agreed that they do not attend the sexual reproductive health services despite that they were able to show knowledge of how to protect themselves.

The major theme of "under utilization" which was consistently noted in the FGDs due to their perceived susceptibility, and cultural norms that played a role in their under-utlisation is consistent with a study in Ghana by Oware-Gyekye, (2005) that found that some of the reasons why adolescent are reluctant to use SRH services was that society frowns at those adolescents who are found using sexual health services. This is related to subjective cultural norms of the society.

Adolescents who participated in the survey showed high knowledge of sexual reproduction, contraception they were also able to show similar knowledge when they were asked to state the services that were being offered at the clinic as (70.3%) could correctly mention some of the services that were being offered at the local clinic. However a worrying percentage (21%) said they did not know the services at the clinic. Those adolescents who took part on the focus group discussion felt that the clinic was not going out to "sell" their services which meant that they did not really know what was happening at the clinic. Biddlecom et al., (2006) highlighted some of the barriers that are faced by adolescents for example, some of the barriers are related to social context and these are some of them: feelings of shyness, fear, and embarrassment. This notion was supported by the views of the participants who took part in the focus group discussions. They stated that felt that they were too young to go and seek such kind of services; this was also projected to the service provider who adolescents thought resembled their parents and would think them too young to indulge in sexual activities. However when adolescents age was related to knowledge no relationships were obtained. They all scored high marks on the level of knowledge.

Adolescents also related the age of the provider to those of their parents and this was perceived as a barrier to effective utilization of the services. Adolescents felt that they would be better

served by a provider who is closer to their age like someone in their twenties who had just existed adolescence. They felt that they could not talk freely to adults as they reminded them of their parents. The participants in this study also referred to some of the barriers as related to cultural taboos where parents refused to talk to adolescents about sexual matters and adolescents were not allowed to talk to their parents about matters relating to sexuality. Dejong et al., (2007) in their study conducted in the Middle East and North Africa observed that cultural taboos are major obstacles to inform discussion about reproductive health issues particularly with young people. This has also been supported by Mohammadi et al., (2006) who observed that adolescents are reluctant to seek information from their parents for fear that their parents will assume that they are engaging in sexual activity and then they will be viewed negatively.

5.3.1 Conclusion

This chapter has summarized the overall impressions from both the qualitative and quantitative findings. The health belief model was used to guide the study and it proposes that when one has understanding of the risks involved they are likely to take action to prevent the problems. However, the findings of this study have revealed that despite the apparent high level of knowledge displayed by both groups, there is still underutilization of SRH services by adolescents in Tutume. Further more problems that hinder adolescents from accessing SRH services exist. In this era of HIV It is necessary for different stake holders to come together in trying to reduce these problems such as opening up communication channels for adolescents are able to discuss without fear issues pertaining sexual matters. This will go a long way n reducing the negative perceptions harbored by both adolescents and service providers.

5.4 RECOMMENDATIONS

In light of the findings of this study that showed barriers to utlisation of SRHS due to perceived and cultural norms, and showed that most adolescents' source of knowledge regarding SRHS were mainly from teachers, the following recommendations are suggested.

The Education System

There should be forums to promote dialogue between teachers, parents and adolescents about adolescent sexual matters so as to empower the parents to give appropriate information regarding sexual reproduction.

There should be a revision of the school health policy at both primary and secondary school level to give clear guidelines on the content and implementation of the sexual and reproductive health curriculum. The guidance and counseling teachers especially in rural area where there is little media coverage should also be empowered to offer enough and appropriate information to the youth. The material should be diverse so as to promote gender specific sexual reproductive health issues.

The results of this study found that most of the information regarding sexual and reproductive health was received from their teachers. In light of this, teachers should receive regular refresher training courses and material on this subject matter, so as to help them keep abreast with the latest development in SRH.

Health Care Facilities

The results, especially that of the FGDs, showed that adolescents were reluctant to seek SRHS or to talk about their sexual reproductive health issue with a health care provider who they perceived in a similar light to their parents. To prevent such barriers to seeking SRHS, lay counselors who may be easier for the adolescents to relate to due to in age and cultural and social familiarity should be encouraged to work in the SRHS. Their roles could be to assist in recruiting and retaining adolescent in the service.

A good working relationship between the school and the local clinic will help to facilitate teaching by both nurses and teachers and will encourage adolescents to attend the sexual reproductive health services.

Further research

In order to develop ways and means of solving the communication gap between adolescents and parents it is necessary to research further on the patterns of communication between parents and adolescents.

5.5 STUDY LIMITATIONS

The study was largely qualitative and therefore a small sample of the adolescent population was used. A total of 14 adolescents were used to conduct two focus group discussions. These were dependent on the availability of participants. The disadvantage of interviews as a source of data is usually dominated by participants who are able to express themselves freely and are articulate

and informed about the phenomenon of interest. To control for this, the researcher, deliberately probed responses from all participants in the FGDs so as to allow each member of the FGD an opportunity to share their opinions.

Another limitation was the issues of adolescents consent; the researcher could not reach the intended sample size for both samples because the parental consent was not forth coming as expected. Initially the researcher intended to have 96 participants for the survey and 30 respondents for the focus group discussion. This was not realized due to issues of consent related to the sensitivity of the topic and parental consent being requested as the adolescents were still deemed to be minors.

5.6 CONCLUSION

This chapter has highlighted the discussions of the major results, recommendations and the limitations of the study. The finding of the study has provided insight in the plight of adolescents in Tutume. The major findings of the study being a generally high knowledge on sexual reproductive issues and low utilization of the health care services resulting from barriers perceived by adolescents.

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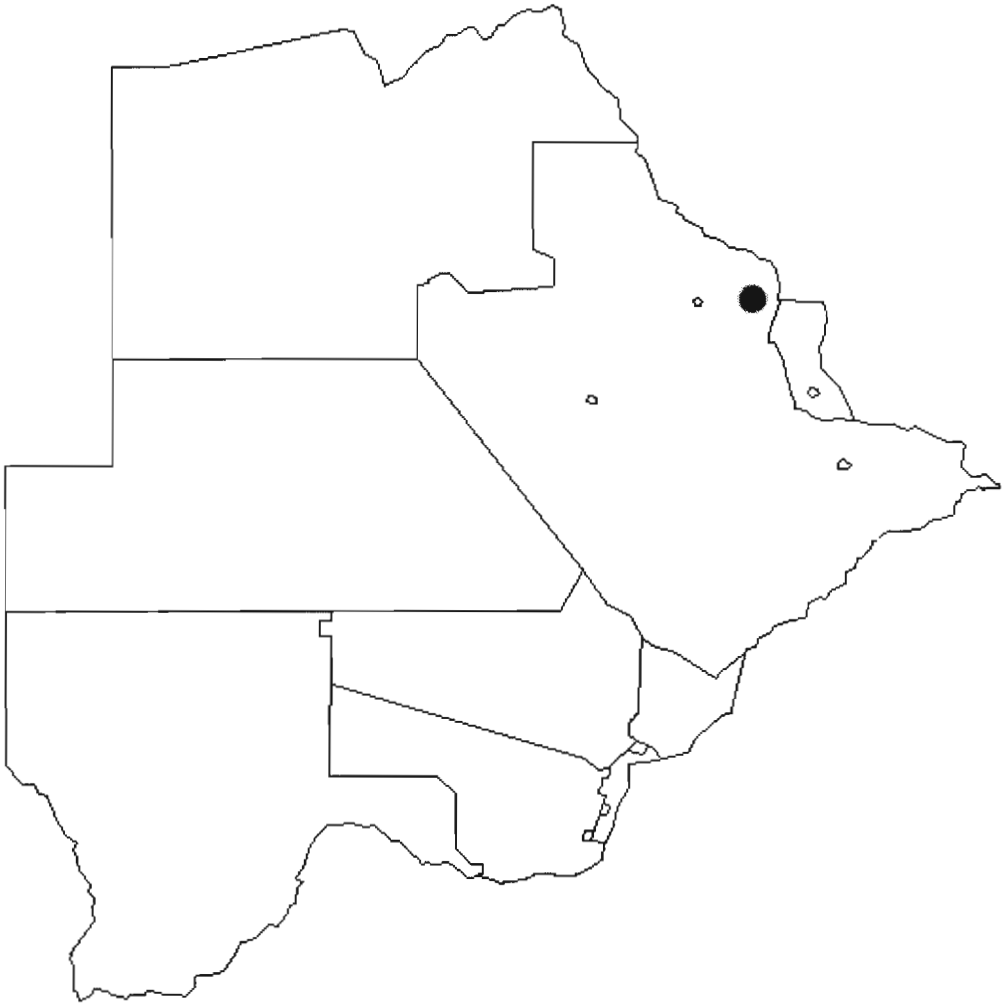
Annexure 1: Content validity

OBJECTIVE	INSTRUMENT	QUESTION
1.to assess the level of knowledge among adolescence regarding sexual reproduction and sexual reproductive health	Self Reported instrument	All items of the instrument A
2. Explore the perceptions of adolescents towards the current sexual reproductive health services in Botswana	Focus group discussion guide	9-12, (instrument B)
3. To assess the level of utilization of the sexual reproductive health services among adolescents in Botswana.	Focus group interview guide	1-3 (instrument B)
4. To identify the limiting factors to effective utilization of the existing sexual reproductive health services.	Focus group interview guide	4-6 (instrument B)
5. To identify the enabling factors to effective utilization of the existing sexual reproductive health services.	Focus group interview guide	7-8 (instrument B)

Annexure 2 The map of Botswana showing the location of the study setting



NB the highlighted area shows the study setting (Tutume Village) in the central district

Annexure 3 Instrument B: Cues for Focus Group Discussions

Adolescent consent focus group discussion

By participating in this discussion, I acknowledge that I have parental and guardian consent. I understand that I agree to be interviewed by Ms K. Dingi. I understand that I will be part of the research study that is exploring the adolescent's knowledge, attitudes and perceptions regarding sexual reproductive health services in Tutume village. I will take part in the discussion directed by the researcher at school. I understand that I have been selected because I am an adolescent aged between 12 and 19 and currently studying in a community junior secondary school in Tutume village.

I understand that participation is voluntary and I can withdraw at any time without any penalty or any negative implications on my current schooling.

I have also been informed that I will not need to state my name during the discussion group and my name will not be identified in the study.

Instruction: The following questions are a guide for the FGD, the interviewer will probe the participants to get in-depth information on each question.

Utilization

1. Have you ever attended your local clinic for family planning services, please share your experience with us?
2. How often do you attend this for family planning services?
3. What are some the reasons why you attended?

3. What are some the reasons why you attended?

Limiting factors

4. What would discourage you from visiting the clinic for family planning services?

5. In your own opinion what are the weaknesses of the services offered

6. What areas would you like to be improved within the present reproductive health services?

Enabling factors

7. In your own opinion what are the strengths of the services offered?

8. What would encourage you from visiting the clinic for family planning services?

Perception of services:

9. Can you recall a positive and negative incident you experienced while visiting the clinic for family planning services.

10. Has this incident influenced your pattern of attending the clinic?

11. In your own opinion would you say the services are adequate to meet your current needs?

12. What do you think are some of the reasons why adolescents' generally do not visit the Clinic for family planning services?

Perceived Susceptibility:

13. Do you think you can get HIV/ AIDS or STIs? or are likely to fall pregnant?

14. Between boys and girls who do you think is more likely to get HIV and why.

15. Do you think you are likely to fall pregnant?

16. What do you think needs to change in your current behaviour to reduce this likelihood?

17. How can you prevent yourself from getting HIV?

DIPOTSO TSE DI DIRISIWANG GO LAOLA DIPUISANYO

Tlhaloso: dipotso tse di latelang di tlaabo di dirisiwa go laola dipuisano. Molaola dipuisano o tlaa nna le tshwanelo ya go batla tlhaloso goya pele mo batsee karolong le mo potsong nngwe le nngwe fa go tlhokafala.

TIRISO YA KOKELWANA / UTILISATION OF THE FACILITY

4. Ao kile wa etela kokelwana e e gaufi le wena mo nwageng one o
5. A okile wa etela kokelwana ee gaufi le wena go kopa thuso ya tsa boiphemelo le tlhatlologanyo tsholo? Ke kopa gore re bue ka fa o thusitsweng ka teng fa o ile kokelwanweng.
6. O etela kokelwana ga kae
7. Ke a fe gape mabaka mangwe a o a dirisetsang o etele kokelwana ntle le dithuso tsa boiphemelo le tlhatlologanyo tsholo? .
8. A gona le mabaka mangwe a a go itumedisitseng kgotsa aa sa go itumedisang ko kokelwanweng fa o ile go kopa thusa ka tsa boiphemelo le tlhatlologanyo tsholo?
9. A tiragalo ee amile tiriso ya gago ya kokelwana ka mokgwa mongwe?
10. Go ya ka wena a ditirelo tsa kokelwana di araba letlhoko tsa banana bogolo jang re itebagantse le go thusa banana ba seeemo sa lona tsa boiphemelo le tlhatlologanyo tsholo??
8. ke afe mabaka a aka dirang gore banana ba seka ba kgatlhegela go dirisa kokelwana thata bogolo jang go batla thuso tsa boiphemelo le tlhatlologanyo tsholo?

Dikgoreletsi le dikgothatsi ka tiriso ya kokelwana

9. Ke afe mabaka aa ka go itsang go etela kokelwana go batla thuso tsa boiphemelo le tlhatlologanyo tsholo?
10. Go ya ka wena ke eng se o se ratang ka kokelwana e e gaufi le wena?.
11. Go ya ka wena ke eng se se go hatlhileng ka kokelwana e e gaufi le wena?
12. O eletsa go ka baakanngwa eng mo ditirelong tsa kokelwana bogolo jang mabapi le tsa boiphemelo le tlhatloganyo tsholo?

MAIKUTLO A GAGO MABAPI LE MOGARE WA HIV/PERCEPTIONS

13. A o akanya gore wena o ka tsenwa ke mogare wa HIV/AIDS
14. O ka itshireletsa jang mo mogareng wa HIV/AIDS
15. Mo gare ga banyana le basimame ke bafeng baba ka tsenwang ke mogare motlhofo? Tlhalosa go re keeng o rialo.

Annexure 4 Instrument A: Adolescent consent for the questionnaire

By completing this questionnaire, I acknowledge I have parental or guardian content.

I understand that I will be part of the research study that is exploring the adolescent's knowledge, attitudes and perceptions regarding sexual reproduction and reproductive health services in Tutume village. I will answer the provided questionnaire at school. I understand that I have been selected because I am an adolescent aged between 12 and 19 and currently studying in a Denjebuya community junior secondary school in Tutume village.

I understand that participation is voluntary and I can withdraw at any time without any penalty or any negative implications on my current schooling.

I have also been informed that I will not show my name and will not be identified in the study or questionnaire.

Instructions

The following questions are for assessing the level of knowledge regarding sexual reproduction and sexual reproductive health services. As you have been chosen to participate on the study you are kindly asked to participate by answering the following questions. The questionnaire will take only 30 minutes. Please answer by ticking on the appropriate boxes or writing your answers on the spaces provided.

**Please note that you are not expected to write your name.

A. Demographic data

A. Demographic data

Date ☐

Gender male ☐

female ☐

Age ☐

Level of study

form 1 ☐

form 2 ☐

form 3 ☐

B. Sources of knowledge for adolescents:

Where do you think you have learnt more about puberty

teacher ☐

parent ☐

sibling ☐

magazines and TV ☐

nurses ☐

others specify ☐

where would you prefer to have learnt about puberty, please specify

Where did learn about the reproductive system

teacher ☐

Parent ☐

sibling ☐

nurse ☐

magazines ☐

others specify ☐

do you get lessons on sexual reproduction in your school

yes ☐

no ☐

not sure ☐

do you think there should be more lessons on this topic

yes ☐

no ☐

not sure ☐

What aspect of the lessons was beneficial? Explain

Do you know what services are currently being offered at your local clinic? Please specify

C. Knowledge on puberty and

reproduction

What is the average cycle of a woman's period

14 days ☐

28 days ☐

40 days ☐

When do you think a woman is most likely to fall pregnant?

At the beginning of the month ☐

Middle of the cycle ☐

At the end of the cycle. ☐

Do you believe that a woman stops growing after sexual intercourse.

yes ☐ no ☐

Mention any three signs of puberty in girls

1.

2.

3.

Mention any three signs of puberty in boys	1. 2. 3			

C. Knowledge Contraception.

Mention any 3 methods of preventing pregnancy	1. 2. 3.			
Do you believe that condoms can prevent pregnancy	yes		no	
Do you belief that condoms can disappear inside a woman?	yes		no	
Do you belief that condoms can protect against HIV	yes		no	
Do you belief that a condom can be used twice.	yes		no	

Knowledge on HIV/STDs

What are the ways of getting HIV?

Can AIDS be cured? yes ☐ no ☐

Can a person infected with HIV look healthy? yes ☐ no ☐

Does the condom reduce the risk of HIV infection

Mention any 2 sexually transmitted diseases you know

1._____

2._____

Mention any 2 signs of sexually transmitted disease in women

1._____

2._____

Mention any 2 signs of sexually transmitted disease in men

1._____

2._____

Annexure 5: Parents/Guardians Written Informed Consent

Dear parent,

I am a Motswana student from University of Kwa Zulu Natal Durban. As partial requirements for my Masters degree in maternal and child health nursing, I am conducting a study on the following topic: exploring the knowledge attitudes and behaviours of adolescents regarding sexual reproductive health services in a community junior secondary school.

Through the principal's office I wish to request your permission to allow your child to participate in the study by answering a few selected questions.

Participation in this study is voluntary and there is no obligation to participate. If at any stage of the study you require to withdraw the consent of your child you will be free to do so and this will under no circumstances compromise your child's education, If you agree that your child can participate you will be expected to sign a consent form giving permission. During the time of data collection some students will be expected to answer a questionnaire while others will be expected to attend a focus group discussion. The interview will be expected to last for an hour and it will be held in the school premises after the lessons are over.

Thank you

Keineetse Dingi

(Student No 208509628)

Please sign on the line below if you allow your child to participate

Parent /guardian's signature: _____

Full name of parent: _____

Date: _____

TESELETSO YA MOTSADI/ MOTLHOKOMEDI WA NGWANA

Go motsadi,

Ke moithuti wa Motswana kwa University of Kwa Zulu Natal Durban. Ele bontlha bongwe jwa dithuto tsame tsa booki jwa maemo a magolwane (Masters degree) ke dira ditshekatsheko ka tiriso ya tsa boiphemelo le tlhatlologanyo tsholo ke banana ba Tutume kwa kokelwaneng.

Maikaelelo a ditshekatsheko tse ke go ela tlhoko kitso, kamogelo le tiriso ya ya ditirelo tsa boiphemelo le tlhatlologanyo tsholo mo bananeng ba motse wa Tutume baba tsenang dikolo.

Ka jalo ke kopa tetla ya gago gore ngwana wa gao a tsee karolo mo dipuisanong tse kago araba dipotso tse di tlaabong di bodiwa ke mosekasiki.

Go tsaya karola ga ngwana wa gago ga go patelediwe, fa ekare rentse re tsweletse motsadi a eletsa go fetola mogopolo babapi le go tsaya karolo ga ngwana wa gagwe, ga gona molato ope. Ebile se, ga se kake sa ama di thuto tsa ngwana wa gago ka mokgwa ope.

Ke elets gore fa ele gore o letlelela ngwana wa gago go tsenelela ditshekatsheko tse o bee monwana (o saene) fa tlase. Dipuisano tse di tlaa dirwa morago ga dithuto tsa sekole gore di seka tsa kgoreletsa dithuto tsa bana ka mokgwa ope.

Ke a leboga

Keineetse Dingi (student No 208509628)

.----------

Tswee tswee kwala leina lagago ka botlalo fa tlase obo o baa monwana (o saena) fa ele gore o a dumalana gore ngwana wa gago a tsee karolo mo dipuisanong tse.

Monwana wa motsadi/motlhokomedi: _____

Leina la motsadi ka botlalo _____

Letsatsi: _____

Annexure 6 Table of qualitative data analysis

Statement from transcript	Transcript reference	Category (HBM)	Emerging themes
DO YOU EVER VISIST THE LOCAL CLINIC			
I never fall sick so I never attend the clinic	Billy	Perceived seriousness	The general view here is that the clinic is viewed as a place for treatment of disease s only. Adolescents say they never visit the clinic except in case of illness. Adolescents don't even use the clinic for promotive or preventive measures.
Yes we only go there when we are sick	John	Perceived seriousness	
I don't think I need the clinic as they teach us these thing on TV	Mercy	Perceived susceptibility	
I never fall sick so I never attend the clinic	Thabang	Perceived susceptibility	
DO YOU ATTEND THE CLINIC FOR FAMILY PLANNING SERVICES			
Nooooo! we don't	All (smiles of shyness)	Perceived susceptibility	
Because we have not started thinking of those things	Joy	Perceived seriousness	Adolescents generally feel that they are too young to be seen at

I feel I am too young to be thinking about those things	Aggie	Perceived barriers	the clinic seeking those king of services This stems from perceived cultural norms
I ask myself what nurses will think of me being so young	Michael	Perceived barriers	They perceive nurses as being judgemental
Even if one wanted to go to the clinic the nurses will ask you why you want to start bad things at such a young age	Bogadi	Perceived barriers	
The nurses will wonder if I have started and they will lecture me	David	Perceived barriers	
The other reason is that they teach us about these things at school but they don't tell us that we can translate them into real life like we can actually go to the clinic for clarification and to get the services.	Mosadi	Perceived barriers	Lack of motivation from key authority figures such as parents and teachers
WHAT ARE THE LIMMMITING FACTORS TO EFFECTIVE UTILIZATION OF THE SERVICES			
We also fear what our parents will think if they get to know that we visited the clinic to seek those services, they will actually think we have started to indulge in sexual activities.	Thabo	Perceived barriers	Fear of stigma and judgmental attitudes

I only recall all the negative incidents at the clinic	Thabang	Perceived benefit/costs	The clinic is perceived in a negative light in terms of the services, long queues, opening times provider attitude etc
Another factor is that of time when you go to the clinic in the morning you find it full but when you go there in the afternoon they are either lazy or too tired to help you. At time it is better to go there in the afternoon.	Mercy	Perceived barriers	The service time does not favor youth
Also consider the long queues at the clinic, there are usually long queues at the clinic that can discourage one from the clinic.	Billy	Perceived barriers	Waiting time can discourage adolescents from using the services.
The clinic itself does not help the youth much but other organization such as nongovernmental organizations and youth organizations do help a lot.	Billy	Perceived benefits	Negative perception about the clinic
The clinic does not really help	Mercy	Perceived barriers	Negative perception about the clinic
They just put posters all over the clinic showing different things	Joy	Perceived barriers	Negative perception about the clinic

Yaa the clinic could help but the problem is they don't like sell their product to the people so we don't even know what they do there we don't even know they exist.	Thabo	Perceived benefits	People don't know about the clinic / services
The health talks could be helpful but they are all inclusive they are not tailored for young people they rather address the larger community Even the health talks that are given at the clinic are usually about adult things like cervical cancer and other staff it's never about the youth	John Aggie	Perceived benefits Perceived benefits	Inadequacy of the services
As young people we really value our privacy for instance if we visit the clinic and I want to seek the education about sexual health services and STI the elders who are present at the clinic may tell my mother that I have "started". And they look at you with that "eye" that someone has mentioned	Mercy	Perceived barriers	stigma and perceived lack of privacy

I also fear a situation where nurses will go and tell my parents that I have started doing things. Nurses have no privacy they will report to your mother when they saw you picking condoms or when they see you with your mother they will saying so this is your child who came to the clinic for such and such things	Jack	Perceived barriers	Stigma and perceived lack of privacy from the part of the provider
The age for me is not a problem but gender is a problem, being a male I would not feel comfortable talking to a female nurse about some of hese things.	Billy	Perceived barriers	Age: Peer pressures
Age really counts, imagine I leave my mum at home and I have to face another mum at the clinic no! I will not be able to express myself well actually I will think twice before I tell her the true reason for my visit	John	Perceived barriers	Provider's gender can be a barrier
The age for me is not a problem but gender is a problem, being a male I would not feel comfortable talking to a female nurse about some of these things.	Billy	Perceived barriers	Provider's gender can be a barrier
Age really counts, imagine I leave my mum at home and I have to face another mum at the clinic no! I will not be able to express myself well actually I will think twice	John	Perceived barriers	Provider's age counts.

before I tell her the true reason for my visit			
As a female I would also like to be helped by a female nurse so she can understand me better	Botho	Perceived barriers	Gender issues
Me too I want to be served by a female nurse so she can understand my problems well unlike a male who would not understand me."	Joy	Perceived barriers	Gender issues
Yes I belief a young nurse who is well trained in Communication skills, we don't want someone who speaks adult language we like the adolescent language	Thabo	Perceived benefits	Age and communication skills
Nurses should also be trained to communicate with different age groups and the public should be taught that they have the right to privacy	Mercy	Perceived barriers	Communication with the youth
The government should trained doctors in equal numbers so that as patients we can choose who we want to attend to us	Botho	Perceived benefits	Gender/cultural taboos
Our clinics and hospitals are very clean as the government has hired people to clean them, that can be very encouraging	Mercy	Perceived benefits	Status of the service/clinic as an enabling factor

Even though nurses are rude doctors are very friendly and you don't feel intimidated to talk to them.	John	Perceived benefits	Provider attitudes
Aids is a problem that has always been there even our former president was passionate about it, by now we know the different ways of getting infected even when you are not doing the sex thing	Botho	Perceived benefits	Knowledge about HIV is abundant
Adolescents perceptions to HIV/STI			
When I was growing up I thought aids was for older people but now I know better that if I don't protect myself from I may get infected.	Joy	Perceived susceptibility	Good understanding of HIV
Even me I thought HIV was associated with people who do sex but now I know I can get infected through other means	osadi	Perceived susceptibility	Good knowledge of HIV
AIDS is like a silent killer and we just have to be very careul.	Thabo	perceived susceptibility	HIV/perception
I know I can get infected but I believe that if you do not engage in sexual activities you may not get infected	Michael	perceived benefits	
The youth are very knowledgeable about HIV and with this kind of knowledge we can protect ourselves	Botho	Perceived susceptibility	Knowledge is power
For me behavioral change is the key to everything, one should be able to ask themselves if one is doing the right thing or not	John	Perceived benefits	Knowledge is power
From the religious point of view	Mercy	Perceived benefits	Behavior change

abstinence is the best			
I think self control is the key to everything, we should be able to control the way we behave.	Thabang	Perceived benefits	Abstinence perceived as the best method of protection
I think by going to church we can reduce the chances of getting infected as the churches preach abstinence and if we listen to the massages we can stay healthy.	Thabo	Perceived benefits	Abstinence perceived as the best method of protection
With the availability of information we are empowered so really there is no need for anybody to get infected.	Joy	Perceived benefits	High knowledge is perceived as being a means to protection
BETWEEN BOYS AND GIRLS WHO IS LIKELY TO BE INFECTED AND WHY			
girls are more likely to be infected because they have no stand, they are always being proposed to and eventually a man will persuade them to have sex with them even when they are not ready	David	Perceived susceptibility	Gender as susceptibility
I believe males are more likely to be infected than girls as they like to explore things and sex is no exception and in this case it's the boys who are always chasing girls not girls chasing after boys.	Billy	Perceived susceptibility	Gender as susceptibility
The reason why males are being encouraged to circumcise is that they are at risk and circumcision can reduce the chances of infected	Thabang	Perceived susceptibility	Gender as susceptibility

will be reduced if they are circumcised.			
Its girls who are at risk because they don't have self control and usually they don't have control in relationships. I also believe that girls are more likely to be infected than boys because when they say "no" the no will just be very thin(not convincing)they don't really express it well and it will lead the man to think they are interested. They can't be bold enough o say no because they are under pressure to own nice things like cell phones and your friend can add to the pressure by convincing you that it is ok to sleep with a man so he can buy you a phone.	Aggie Sadi	Perceived susceptibility Perceived susceptibility	Gender as susceptibility Gender as susceptibility

Annexure 7: Sample of Focus Group Transcript

INTERVIEW 1

DATE 04-august-2009 **TIME: 15:30 pm -16:30pm**

AGE GROUPS: 16-17 years

PLACE: Denjebuya Community Junior Secondary School - Tutume

GROUP STRUCTURE: 3 female and 3 males.

The interview was conducted in both English and Setswana to allow the participants to express themselves freely in the language that they are comfortable with. The names used here are pseudo names. The interview was quite interactive with at least each participant getting a chance to talk. Permission was sought from the respondents to record the interview.

INTERVEIWER:

"*Hi guys! Today we are going to be talking about sexual reproductive health services what we commonly refer to as family planning services. I would urge you to feel free to participate and express yourself. I do not want people to give their names so that I would maintain privacy. However I would like to request your permission to record the proceedings for the sake of writing up later.'*

INTERVIEWER: DO YOU EVER ATTEND THE LOCAL CLINIC THAT IS: THE CLINIC NEAR YOUR HOME OR YOUR SCHOOL?

Billy: *"I only attend the clinic when I feel sick and that is not often, I normally do not attend the clinic to check other diseases*

John: *"yes most of go there only when we are sick."*

Mercy: "*we don't go to the clinic they teach us at school and sometimes in the radio and once a while on television.*"

Botho: ***"****I don't think I have seen much on television because adults monopolize TV and say they watch their own programs like watching news."*

INTERVIEWER: what about going to the clinic for family planning services? do we ever attend the clinic for family planning services?

"*Chorus of no we don't.*" (This is said with element of shy smiles)

Joy: *"we don't go for the family planning services because we have not started to think about sexual activities as yet".*

Thabo: "*the other reason is that we get the information from the teachers and text book but nobody ever encourages us to translate the information in to real life situation. They do not encourage us to go to the clinic to seek the services. So we just take it to be just something we should learn at school."*

Mercy: *"the other reason being that we fear what our parents will say if they get to know that we had been to the clinic for such a services, they will think you are indulging in sexual activities."*

Joy: "*These things are not exposed to us we don't even know there are such services for the youth we think they are for the adults"*

LIMITING AND ENABLING FACTORS

INTERVIEWER: I believe once in a while you have visited the clinic, can you recall any positive incidence that may have happened and you would want to share with us?

John "*no I can only recall the negative ones*"

Interviewer: share the experience with us please.

John. *"Like when you come to the clinic with an emergency and the nurses take their time to help you, when you are eventually helped you are told to wait for the doctor who may come on a different day and in the mean time what do you do with your problem."*

BOTHO: "*basically what he has said is true, nurses at the clinic usually have their own way of treating the disease and tend to think the head ache is not a serious disease and yet there are diseases like meningitis which may be fatal."*

INTERVIEWER: do these experiences discourage you from going to the clinic?

Billy: *"When you go to the clinic with an emergency and the nurses take their time to help you, when you are eventually helped you are told to wait for the doctor who may come on a different day and in the mean time what do you do with your problem."*

Mercy: *"basically what he has said is true, nurses at the clinic usually have their own way of treating the disease and tend to think the head ache is not a serious disease and yet there are diseases like meningitis which may be fatal."*

BOTHO: *"Yes, the other factor is that of time: if you visit the clinic in the afternoon the nurses can't help you well they are either tired or lazy but in the morning they are better."*

BILLY: *"the other issue is that of the queue, there are usually long queues at the clinic that can discourage one from going to the clinic."*

INTERVIEWER: in your opinion would you say that the services at the clinic address the needs of the youth?

Bill: *"The youth are addressed by other organizations like the non organizational organizations, youth groups and religious groups."*

Mercy: *"Not the clinic really."*

Joy: *"In the clinic they put up posters that are educational and help us to learn more. These are for everyone to see."*

INTERVIEWER: WHAT ABOUT THE HEALTH TALKS?

John: *"These health talks though helpful they are usually non specific and they address a larger community hence they not really helpful."*

Botho: "*You come to the clinic and people (both nurses and patients) judge you because we are in the same queue with adults, eg when they see you collecting condoms they will ask you what you are going to do with the condoms but that should not be the case once you have made up your mind you need to protect yourself.*"

Thabo: "*Some of us are very shy and we can't openly be seen at the clinic collecting condoms. Adults look at you with "eye"*"

INTERVIEWER: once again what really discourages you from using family planning services?

Mercy: "*For example if one is infected by STI they will not feel comfortable going to the clinic because the first thought that comes to you is how are the doctors and nurses going to look at me? You know that 'eye'*"

John: *"Young people also we have mood swings and we really like our privacy for instance if I visit the clinic with mu mum and I want to find out from the clinic about family planning services and sexually transmitted diseases, those elders who are present may go and tell my mother that I have "started"*

Botho: *"Most of us are controlled by peer pressure and since teachers are not really encouraging us, often when your friends tell you not to go you might think you are doing the right thing by not visiting the clinic."*

INTERVIEWER: what about the age factor?

Billy: *"For me the age is not a problem but gender is a problem, being a male I would feel more comfortable talking to a male about those issues not a male.*"

Thabo: *"True! Age counts imagine I leave my mother at home and I have to face another mum at the clinic no! In that case I will not be able to express myself well with that person."*

Joy: "*Me too I want to be served by a female nurse so she can understand my problems well unlike a male who would not understand me."*

Botho*"As a female I would also like to be helped by a female nurse so she can understand me better"*

INTERVIEWER: **how then can the situation be improved**?

Botho: "*When one visits the clinic, one should be allowed to chose who can attend them, preferably same sex and not a very old person.*"

John: *"Generally when males need to talk, they usually chose a male friend to talk to and young females also prefer to talk to another female."*

Thabo: "*I also belief that a young nurse of any gender who is trained in communication skills, we don't want to communicate in adult's language. We want someone who can use the kind of language that the youth use."*

Mercy: *"Nurses should also be trained to talk to different age groups and the general public should be informed that they have a right to privacy."*

INTERVIEWER: what do you see as the strengths in the sexual reproductive services?

Mercy: "*Generally the clinics are very clean as the government has hired people to keep them clean and this can encourage someone to visit the clinic without any fear"*

John: "*Even though nurses can be very rude doctors are usually very polite and that can be very encouraging to visit the clinic."*

INTERVIEWER: do you think you can get infected by HIV?

Botho: "*HIV has always been there even our former president was very passionate about it an really by now we know the different ways of getting infected even when you do not do the sex thing."*

Joy: "*When I was growing up I thought HIV was for older people, but now I know better that if I don't protect myself from body fluids I can get infected*"

Mercy: *"Even me I thought it was a disease for those people who do sex but now I believe I can get infected through bother means even if not sex."*

Thabo: "*AIDS is like a silent gun we have to be very careful."*

INTERVIEWER: how can we protect ourselves from getting infected?

Billy: "*I believe that ignorance is the worst enemy but now that the youth have the knowledge we should be able to protect ourselves.*"

John: "*For me behavioral change is the key one should be able to ask yourself if what you are doing is the right thing or not.*"

Mercy: "*From the religious point of view abstinence is the best, best, best*".

Botho: "*For me self control can help a lot one should able to control the way they behave.*"

Thabo: "*I think by going to church we can reduce the chances of getting infected since the church preaches abstinence then if we heed that massage we can stay healthy.*"

Joy: "*With the availability of information we are empowered so really there is no need to get infected.*"

INTERVIWER: between boys and girls who is most likely to be infected and why?

Billy: "*I think males are more at risk since they like to explore and they are the ones who are always chasing the girls, girls don't chase but boys?*"

John: "*I agree with him like males are encouraged to circumcise but they don't and yet it can reduce the chances of infection.*"

Mercy: "*No I would say girls are more at risk since they have no self control and they don't have much control over the relationship boys are in control.*"

Botho: "*And girls are looking for nice things like cell phones especially when your friends have nice ones you can just agree to have sex unprotected for the sake of a nice phone. At times a girl who is from a disadvantaged home can be taken advantage of y someone with money and end up in bed with someone for the sake of basic necessities.*"

The researcher then thanked the participants for their contribution.

Annexure 8: Sample of Focus Group Transcript

INTERVIEW 1

DATE 04-august-2009 **TIME: 15:30 pm -16:30pm**

AGE GROUPS: 16-17 years

PLACE: Denjebuya Community Junior Secondary School - Tutume

GROUP STRUCTURE: 3 female and 3 males.

The interview was conducted in both English and Setswana to allow the participants to express themselves freely in the language that they are comfortable with. The names used here are pseudo names. The interview was quite interactive with at least each participant getting a chance to talk. Permission was sought from the respondents to record the interview.

INTERVEIWER:

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INTERVIEWER: DO YOU EVER ATTEND THE LOCAL CLINIC THAT IS: THE CLINIC NEAR YOUR HOME OR YOUR SCHOOL?

Billy: *"I only attend the clinic when I feel sick and that is not often, I normally do not attend the clinic to check other diseases.*

John: *"yes most of go there only when we are sick."*

Mercy: *"we don't go to the clinic they teach us at school and sometimes in the radio and once a while on television."*

Botho: "*I don't think I have seen much on television because adults monopolize TV and say they watch their own programs like watching news."*

INTERVIEWER: what about going to the clinic for family planning services? do we ever attend the clinic for family planning services?

"*Chorus of no we don't.*" (This is said with element of shy smiles)

Joy: *"we don't go for the family planning services because we have not started to think about sexual activities as yet".*

Thabo: "*the other reason is that we get the information from the teachers and text book but nobody ever encourages us to translate the information in to real life situation. They do not encourage us to go to the clinic to seek the services. So we just take it to be just something we should learn at school."*

Mercy: *"the other reason being that we fear what our parents will say if they get to know that we had been to the clinic for such a services, they will think you are indulging in sexual activities."*

Joy: "*These things are not exposed to us we don't even know there are such services for the youth we think they are for the adults"*

LIMITING AND ENABLING FACTORS

INTERVIEWER: I believe once in a while you have visited the clinic, can you recall any positive incidence that may have happened and you would want to share with us?

John "*no I can only recall the negative ones*"

Interviewer: **share the experience with us please.**

John. *"Like when you come to the clinic with an emergency and the nurses take their time to help you, when you are eventually helped you are told to wait for the doctor who may come on a different day and in the mean time what do you do with your problem."*

BOTHO: "*basically what he has said is true, nurses at the clinic usually have their own way of treating the disease and tend to think the head ache is not a serious disease and yet there are diseases like meningitis which may be fatal."*

INTERVIEWER: do these experiences discourage you from going to the clinic?

Billy: *"When you go to the clinic with an emergency and the nurses take their time to help you, when you are eventually helped you are told to wait for the doctor who may come on a different day and in the mean time what do you do with your problem."*

Mercy: *"basically what he has said is true, nurses at the clinic usually have their own way of treating the disease and tend to think the head ache is not a serious disease and yet there are diseases like meningitis which may be fatal."*

BOTHO: "*Yes, the other factor is that of time: if you visit the clinic in the afternoon the nurses can't help you well they are either tired or lazy but in the morning they are better."*

BILLY: *"the other issue is that of the queue, there are usually long queues at the clinic that can discourage one from going to the clinic."*

INTERVIEWER: in your opinion would you say that the services at the clinic address the needs of the youth?

Bill: "*The youth are addressed by other organizations like the non organizational organizations, youth grops and religious groups."*

Mercy: *"Not the clinic really."*

Joy: *"In the clinic they put up posters that are educational and help us to learn more. These are for everyone to see."*

INTERVIEWER: WHAT ABOUT THE HEALTH TALKS?

John: "*These health talks though helpful they are usually non specific and they address a larger community hence they not really helpful."*

Botho: "*You come to the clinic and people (both nurses and patients) judge you because we are in the same queue with adults, eg when they see you collecting condoms they will ask you what you are going to do with the condoms but that should not be the case once you have made up your mind you need to protect yourself.*"

Thabo: "*Some of us are very shy and we can't openly be seen at the clinic collecting condoms. Adults look at you with "eye"*"

INTERVIEWER: once again what really discourages you from using family planning services?

Mercy: "*For example if one is infected by STI they will not feel comfortable going to the clinic because the first thought that comes to you is how are the doctors and nurses going to look at me? You know that 'eye'*"

John: *"Young people also we have mood swings and we really like our privacy for instance if I visit the clinic with mu mum and I want to find out from the clinic about family planning services and sexually transmitted diseases, those elders who are present may go and tell my mother that I have "started""*

Botho: *"Most of us are controlled by peer pressure and since teachers are not really encouraging us, often when your friends tell you not to go you might think you are doing the right thing by not visiting the clinic."*

INTERVIEWER: what about the age factor?

Billy: *"For me the age is not a problem but gender is a problem, being a male I would feel more comfortable talking to a male about those issues not a male*."

Thabo: *"True! Age counts imagine I leave my mother at home and I have to face another mum at the clinic no! In that case I will not be able to express myself well with that person."*

Joy: "*Me too I want to be served by a female nurse so she can understand my problems well unlike a male who would not understand me."*

Botho*"As a female I would also like to be helped by a female nurse so she can understand me better"*

INTERVIEWER: how then can the situation be improved?

Botho: *"When one visits the clinic, one should be allowed to chose who can attend them, preferably same sex and not a very old person."*

John: *"Generally when males need to talk, they usually chose a male friend to talk to and young females also prefer to talk to another female."*

Thabo: *"I also belief that a young nurse of any gender who is trained in communication skills, we don't want to communicate in adult's language. We want someone who can use the kind of language that the youth use."*

Mercy: *"Nurses should also be trained to talk to different age groups and the general public should be informed that they have a right to privacy.*

INTERVIEWER: what do you see as the strengths in the sexual reproductive services?

Mercy: *"Generally the clinics are very clean as the government has hired people to keep them clean and this can encourage someone to visit the clinic without any fear"*

John: *"Even though nurses can be very rude doctors are usually very polite and that can be very encouraging to visit the clinic."*

INTERVIEWER: do you think you can get infected by HIV?

Botho: *"HIV has always been there even our former president was very passionate about it an really by now we know the different ways of getting infected even when you do not do the sex thing."*

Joy: *"When I was growing up I thought HIV was for older people, but now I know better that if I don't protect myself from body fluids I can get infected"*

Mercy: *"Even me I thought it was a disease for those people who do sex but now I believe I can get infected through bother means even if not sex."*

Thabo: *"AIDS is like a silent gun we have to be very careful."*

INTERVIEWER: how can we protect ourselves from getting infected?

Billy: "*I believe that ignorance is the worst enemy but now that the youth have the knowledge we should be able to protect ourselves.*"

John: "*For me behavioral change is the key one should be able to ask yourself if what you are doing is the right thing or not.*"

Mercy: "*From the religious point of view abstinence is the best, best, best*".

Botho: "*For me self control can help a lot one should able to control the way they behave.*"

Thabo: "*I think by going to church we can reduce the chances of getting infected since the church preaches abstinence then if we heed that massage we can stay healthy.*"

Joy: "*With the availability of information we are empowered so really there is no need to get infected.*"

INTERVIWER: between boys and girls who is most likely to be infected and why?

Billy: "*I think males are more at risk since they like to explore and they are the ones who are always chasing the girls, girls don't chase but boys?*"

John: "*I agree with him like males are encouraged to circumcise but they don't and yet it can reduce the chances of infection.*"

Mercy: "*No I would say girls are more at risk since they have no self control and they don't have much control over the relationship boys are in control.*"

Botho: "*And girls are looking for nice things like cell phones especially when your friends have nice ones you can just agree to have sex unprotected for the sake of a nice phone. At times a girl who is from a disadvantaged home can be taken advantage of y someone with money and end up in bed with someone for the sake of basic necessities.*"

The researcher then thanked the participants for their contribution.

INTERVIEW 2

DATE: 04-august-2009

TIME: 12:30- 13:130 **AGES: 14-15 years**

PLACE: Denjebuya Community Junior Secondary School.

GROUP STRUCTURE: 4 female and 4 males

The interview was conducted in both English and Setswana to allow the participants to express themselves freely in the language that they are comfortable with. The names used here are pseudo names. Permission was sought from the respondents to record the interview.

INTERVEIWER:

"*Good afternoon guys today we are going to be talking about sexual reproductive health services what we commonly refer to as family planning services. I would urge you to feel free to participate and express you self. I do not want people to give their names so that I would maintain privacy. However I would like to request your permission to record the proceedings for the sake of writing up later.*"

INTERVIEWER: "*how far is the nearest clinic from your school or your home?*"

Aggie: *'well it's not far from here even at home we are not far from the clinic*"

"*Even at home there is always a clinic near you*"

DO WE EVER VISIT THE CLINIC?

Mosadi *"I only visit the clinic when I really feel sick other than that no"*

Aggie *"Only when I am not feeling well"*

David *"Only when I am not feeling well"*

Jack *"Only when I am not feeling well"*

David *"Only when I am really feeling very, very sick"*

Thabang *"I never feel sick therefore I never visit the clinic I don't remember just going to the clinic"*

Sadi *"It depends on how I feel sometimes when I have flu I go to the clinic but not often."*

Micahel *"Only when I really feel sick"*

INTERVIEWER: do you ever visit the clinic specifically to seek sexual reproductive health services? that is contraception like the pill and condoms or even just to seek advice from the nurses.

All: Nooo! (Chorus with shy smiles)

Interviewer: why not?

Aggie: *"because I feel very young to be thinking these things"*

Mchael: "*I ask myself what the nurses will think of me being so young and looking for those services"*

Mosadi: "*I spend most of my time doing school work so really I have not given it a thought*"

Bogadi: "*the nurses will wonder if I have started and they will lecture me and I would not like it".*

Jack: "*my fear is that the nurses may tell my parents that I have started doing things culture"*

Sadi: *"I will feel embarrassed about what the nurses will think of me."*

Thabang: *"nurses have no privacy, they will report to your mother even when they saw you picking condoms at the clinic. The moment they know your mother they will start saying that it is so and so child who was at the clinic today to collect condoms.*"

INTERVIEWER: what about the issue of being in the same queue with adults, does it bother you?

Michael: "*it does not really matter to me'*

Aggie: "*no they should separate children from adults"*

David: *yes if we are in the same queue with adults I will feel like I am doing something that should be done by adults and yet I am a child"*

Jack: "*I think the nurses should have a person specifically for adults and one for youth"*

Bogadi: "*if I was to go there I don't think I would have a problem being with adults because I will not go in with an adult.*"

INTERVIEWER: does the clinic address the youth?

David: "*No especially when it comes to family planning issues emphasis is more on adult issues"*

Aggie: "*even the teachings that are done at the clinic it is usually about adult things such as cervical cancer and other staff, they never really talk about things that are for the youth."*

Michael: "*I am not sure really since I don't often go there"*

INTERVIEWERE: are there any reasons that can discourage you from visiting the clinic?

Bogadi: "*nurses are very rude especially female nurses they can really make you not want to go to the clinic*."

Mosadi: "*nurses like shouting at people for no reason. For example I was visiting the clinic for an eye test and the way that nurse was impatient with me I felt like she was going to bite my head off."*

David: "*peer pressure is also a problem once your friends tell you that they don't go to the clinic you will really feel it is ok not to go there*."

Jack: "*I don't agree entirely some people are not influenced by peer pressure so for some of us it is not a problem."*

INTERVIEWER: **what kind of a nurse would you like to have**?

Thabang: "*someone who is patient*"

Sadi: "*Someone with good listening skills and I think someone elderly will be better they are good listeners*."

Jack: "*someone elderly will actually listen the young nurses are rude and impatient"*

Aggie: *"maybe the ages twenty to twenty something will be better for me if I have to talk to an elderly person she or he will remind me of my mother and I will not be comfortable enough to tell them what I need."*

David: "*someone who is nice and approachable able will do better for me."*

Mosadi*: Someone within the age range of 20-25 would be ideal because if I fin adult I will start thinking twice about what I want to say but someone in the twenties has just exited that stage and will understand"*

Thabang: *"While the young adults are ideal it will also help to have males served by males and females being served by females*."

Jack: "*I still believe adults will be better as they are patient and can listen*"

INTERVIEWERE: what would you say are the strengths of the services?

Sadi: "*The clinics are kept clean and it is one thing that will not turn you off when you are visiting the clinic*"

David: "*they are also accessible in terms of distance. There is always a clinic near you.*"

INTERVIEWER: what are the weaknesses of the services?

Sadi: "*They always put condoms outside where everyone will see you when you want to get them and as young people we will not feel free to collect them when you know someone is looking at you*"

David: "*Yes one will not be able to collect condoms when everyone is watching that is embarrassing.*"

Thabang: "*the services at the clinic are very slow and at times do not even prioritize those patient who are very sick. They are just made to wait.*"

Aggie: "*sometimes there is a problem of lack of medicines, you will be helped but when you are supposed to get the medications then you are told to come on Monday*"

Bogadi: "*in my own opinion nurses of today are very lazy and think that they are educated; they will just sit there and read magazines while the patients are waiting*"

Jack: "*the services are very slow and nurses and doctors are always in a hurry to go for their break and when they come back it is almost time for lunch time.*"

Mosadi: "*many a times there only one person who is consulting and when it is time to go they will just leave you and go.*"

Sadi: "*even those who are checking the temperatures and blood pressure it would help if they were two of them.*"

YOUTHS PERCEPTIONS OF HIV

INTERVIEWER: do you think you can get infected by HIV?

Aggie: no! Smiling

INTERVIEWER: Explain please! Quietness and looks down shyly.

Bogadi: *"I believe that we can get infected after all there are many ways of contracting the virus such as when someone gets inured while playing foot ball you may just touch them without gloves because you don't want them.*"

Sadi: "*as youth we tend to think AIDS can be acquired only though sex but there is many other ways of getting infected such as touching blood when someone gets injured and there are no gloves.***"**

Michael: "*I believe that if you take care of yourself you will not get infected."*

David *"they are right there are many ways of getting infected such as those kids who were infected through mother to child transmission and you find that you are infected even before you were born.*

INTERVIEWERE: how can we protect ourselves?

Mosadi: "*abstinence is the best solution since condoms are not 100% safe it can break and you end up being infected.*"

Jack: "*but for those who can't abstain they should use a condom*

Bogadi: "*my feeling is that the youth should not use a condom but rather abstain what if it breaks and you become pregnant how are you going to explain it to your parents"*

Thabang: "*I really believe that abstinence is the way to go the youth, condoms is not 100% safe and for the youth the "b" of the ABC should not be there as you can be faithful to an infected partner or someone who is not faithful to you."*

INTERVIEWER: between boys and girls who is more likey to be infected and why?

David: "*girls are more likely to be infected because they have no stand, they are always being proposed to and eventually a man will persuade them to have sex with them even when they are not ready"*

Sadi: *"I also believe that girls are more likely to be infected than boys because when they say "no" the no will just be very thin (not convincing) they don't really express it well and it will lead the man to think they are interested. They can't be bold enough o say no because they are under pressure to own nice things like cell phones and your friend can*

add to the pressure by convincing you that it is ok to sleep with a man so he can buy you a phone."

Aggie: "*I would say a both boys and girls; for example as a girl you give your heart to this man simply because he said he loves you, later the boy wants to have sex with you and the girl will only give weak excuses, eventually he tells you that he is in control of the relationship and this thing of the man being the head of the family kinds of makes us allow the boy to call the shots as they are the heads of the relationships" it is not common for the girls to easily express themselves in a relationship. As for the boys they can be reckless and at times sleep with older woman who have had sex before*."

Michael: *"I think everyone has a choice to get infected or not. There is lot of information concerning ways and means of getting infected and ways and means of preventing infection. A lot of people don't get infected because they don't know."*

Jack: "*I think boys amore at risk because to the relationships are all about sex. They always seem to be thinking about sex and as a result they will move from one sex partner to another."*

Annexure 9: Permission from Ethics UKZN

UNIVERSITY OF
KWAZULU-NATAL

RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 – 2603587
EMAIL : ximbap@ukzn.ac.za

24 JUNE 2009

MRS. K DINGI (208509628)
SCHOOL OF NURSING

Dear Mrs. Dingi

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0311/09M

I wish to confirm that ethical clearance has been granted for the following project:

"An exploration of adolescents' knowledge attitudes and perceptions regarding sexual reproductive health services in rural Botswana."

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully

MS. PHUMELELE XIMBA
ADMINISTRATOR
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

cc. Supervisor (Joanne R Ingram)
cc. Mr S Reddy

Annexure 10: Permission letter from Denjebuya School

10-SEP-2009 18:59 P.01

Denjebuya CJSS

Private Bag 001

Tutume

01/08/09

Mrs Keinaetse Dingi

P.O. Box 388

Tsabong

Botswana

Dear Madam

PERMISSION TO CONDUCT A STUDY

This serves to inform you that you have been granted permission to conduct a study in Denjebuya Community Junior Secondary School as per your letter dated 30 July 2009.

For any arrangements contact Mr P.J. George.

Thank you

Yours Faithfully

P.J. George

(for School Head)

THE HEADMASTER
DENJEBUYA C.J.S.S.
2009 08 01
PRIVATE BAG 001, TUTUME
TELEPHONE 287279

1/4

Annexure 11: Permission letter from Botswana Ethics

Telephone: (267) 363200
FAX (267) 353100
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD

MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE

REPUBLIC OF BOTSWANA

REFERENCE NO: PPME 13/18/1 PS IV (42) 30 July 2009

Health Research and Development Division

Notification of IRB Review: New application

Ms Keineetse Dingi
P.O. Box 188
Nkgange

Protocol Title:	**An Exploration of Adolescents' knowledge, Attitudes and Perceptions Regarding Sexual Reproductive Health Services in Tutume Village, Botswana**
HRU Protocol Number:	HRU 00547
Sponsor:	N/A
HRU Review Date:	July 27, 2009
HRU Expiration Date:	July 26, 2010
HRU Review Type:	HRU reviewed
HRU Review Determination:	Approved
Risk Determination:	Minimal risk

Dear Ms Dingi

Thank you for submitting a new Application for the above referenced Protocol.
This approval includes the following:

1. Application form
2. Proposal
3. Consent form

This permit does not however give you authority to collect data from the selected site without prior approval from the management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health within 3 months of completion of the study. Approval is for academic fulfillment only. Copies should also be submitted to all other relevant authorities.

If you have any questions please do not hesitate to contact Mr. P. Khulumani at pkhulumani@gov.bw, Tel +267-3914467 or Mary Kasule at mkasule@gov.bw or marykasule@gmail.com Tel: +267-3632466

Continuing Review
In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior to the protocol's expiration date. The Continuing Review Form can be obtained from the Health Research Division Office (HRDD), Office No. 9A 11 or Ministry of Health website: www.moh.gov.bw or can be requested via e-mail from Mr. Kgomotso Motlhanka, e-mail address: kgmmotlhanka@gov.bw As a courtesy, the HRDD will send you a reminder email about eight (8) weeks before the lapse date, but failure to receive it does not affect your responsibility to submit a timely Continuing Report form

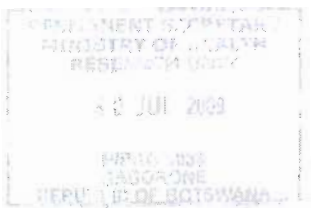
Amendments
During the approval period, if you propose any change to the protocol such as its funding source, recruiting materials, or consent documents, you must seek HRDC approval before implementing it. Please summarize the proposed change and the rationale for it in the amendment form available from the Health Research Division Office (HRDD), Office No. 9A 11 or Ministry of Health website: www.moh.gov.bw or can be requested via e- mail from Mr. Kgomotso Motlhanka, e-mail address: kmotlhanka@gov.bw . In addition submit three copies of an updated version of your original protocol application showing all proposed changes in bold or "track changes".

Reporting
Other events which must be reported promptly in writing to the HRDC include:
- Suspension or termination of the protocol by you or the grantor
- Unexpected problems involving risk to subjects or others
- Adverse events, including unanticipated or anticipated but severe physical harm to subjects.

Do not hesitate to contact us if you have any questions. Thank you for your cooperation and your commitment to the protection of human subjects in research.

Yours sincerely

P. Khulumani
For Permanent Secretary



Annexure 12: Letter to request permission to conduct study from Ndenjebuya primary school

P.O Box 188

Nknage Botswana

30th July 2009

The Principal

Denjembuya community junior secondary school

P. O Box Tutume

Dear Sir/ Madam

REQUEST FOR PERMISSION TO CONDUCT A STUDY

My name is Keineetse Dingi. I am a Motswana student studying for a masters degree in advanced midwifery maternal and child health and neonatal nursing at the university of Kwa-Zulu Natal, Durban south Africa.

This letter severs to request for permission to conduct a study in your school. The intended study is entitled "an exploration of adolescents' knowledge, perceptions and practices regarding sexual reproductive health services in a community junior secondary school in Tutume village Botswana"

Permission from the university of Kwa-Zulu Natal ethics committee and the health research unit has already been obtained. Please see attached copies of the permission letters. Your written response will be highly appreciated

Thank you. Yours sincerely

Keineetse Dingi