

**UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY
SECONDARY SCHOOL ADOLESCENTS IN MOCHUDI**

by

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I declare that ***UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICE BY SECONDARY SCHOOL ADOLESCENTS IN MOCHUDI*** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references

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***UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICE BY
SECONDARY SCHOOL ADOLESCENTS IN MOCHUDI (BOTSWANA)***

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Abstract

The study sought to establish the utilisation of the available adolescent sexual and reproductive health services/facilities by Mochudi secondary school adolescents.

The intent of the study was to determine the level of awareness among adolescents of the existing Adolescent Sexual and Reproductive Health Services/ Facilities in Mochudi and to determine those factors that affect utilisation of sexual and reproductive health services/facilities.

A self administered questionnaire was used by the researcher to collect data from the respondents. Data analysis began with studying and coding of the

responses from the questionnaires and was analysed using a copy of Excel software.

The inferences made from this study are that secondary school adolescents in Mochudi indulge in pre-marital sex and most of them are aware of the presence of sexual and reproductive health services/facilities. However, the majority of the adolescents do not use the services/facilities either due to shyness, inaccessibility of clinics, lack of privacy, unfriendly staff, long waiting time or for others because they are not sexually active.

The feedback from the adolescents is an indication of the inappropriateness of service delivery system pertaining to adolescent sexual and reproductive health in Mochudi.

KEY CONCEPTS

Adolescent(s), Adolescent Friendly Health Facility, Sexual and Reproductive Health services, Utilisation

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List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BOFWA	Botswana family welfare Association
HBM	Health Belief Model
HIV	Human Immune deficiency Virus
IEC	Information, Education and Communication
JOICPF	Japanese Organisation for International Co-operation In Family Planning
KAP	Knowledge, Attitude and Practice
MCH/FP	Maternal & Child Health and Family Planning
P.O.A	Platform of Action
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
UNAIDS	United Nations program on HIV and AIDS
UNFPA	United Nations Fund for Population Activities
USAID	United States for international Development
WHO	World Health Organisation

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CHAPTER 1

Background Information

1.1 INTRODUCTION

Botswana is one of the countries in Southern Africa. It has a surface area of about 581,730 square kilometres. The country is made up of ten (10) districts and has Gaborone and Francistown as the two cities. The other towns are Selebi Phikwe and Lobatse with the rest being urbanised and non – urbanised villages. It has a population of about 1.7 million people. Of this population about thirty eight percent (38 %) of the total population falls between the ages of 10 and 25, and forty one percent (41 %) of the population are below 15 years of age (Adolescent Sexual and Reproductive Health Implementation Strategy 2003: 5). Approximately a third of the population can be classified as being adolescent. This makes the adolescent group a very important section of the total population.

Mochudi is one of the urbanised villages in Kgatleng district of Botswana. According to the 2001 census it has a population of 39,349 people of which 58% are adolescents and 22% are young adults (Population and housing census 2001:54). As regards the health facilities, the village has six government clinics, one non-governmental clinic and one mission hospital. Among these clinics, three provide adolescent friendly services; two being for the government and the third one is a non governmental clinic. Like any other health facility in the country that offer adolescent sexual and reproductive health services, these facilities

have personnel that have been trained to offer sexual and reproductive health services to the adolescents in Mochudi village.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

In 1994, the Government of Botswana joined hands with the rest of the world in signing the platform of Action (POA) that took place in Cairo (Botswana Sexual and Reproductive Health Service and Guidelines [Sa]: 1). This signing signaled a major paradigm shift from a demographic driven focus on family planning to a health driven focus on sexual and reproduction health. With 38% of its population being between the ages of 10 and 24, with a further 41% of the population below 15 years of age, it may be concluded that the progress of Botswana depends a lot on the development of the health of its children and youth. This progress however is being threatened by poor sexual and reproductive health of the youths and the HIV/ AIDS Scourge (Adolescent Sexual and Reproductive Health Implementation Strategy 2003: 5).

According to the Adolescent Sexual and reproductive health document of 2003 produced by Ministry of health, Botswana is stated to have one of the highest HIV infections in the world with an estimated infection rate of 35.8% among pregnant women. The Botswana Sentinel Surveillance for 1999 showed that 60.2% of pregnant women in Sentinel Sites who tested positive were 24 years of age and younger. Pregnant adolescents 19years and younger accounted for 21.5% of HIV positive in 1999 (Adolescent Sexual and reproductive health implementation strategy 2003: 10). With the current HIV infection prevalence rate

of 17.1% for the general population, adolescents who make 25% of the population are also at high risk of sexually transmitted infections, HIV and unwanted pregnancies. With the average age at first intercourse being 17.5, the teenage pregnancy currently stands at 30% while utilisation of contraceptives is only 29% (Botswana Sexual and Reproductive Health Services and Guidelines [SA]: 1).

The health delivery structure of maternal and child health / family planning (MCH / FP) is designed primarily to cater mostly for mothers and under five children and exclude youths. This leaves a gap in the meeting of the health needs of adolescents. (Adolescent Sexual and Reproductive Health Implementation Strategy 2003: 5) The unattended Sexual and reproductive health needs of this largest group exerts a negative impact on Botswana's development potential (*Ibid*: 5). The consequences of this early indulgence in sexual intercourse by adolescents has resulted in early parenting and a high incidence of HIV / AIDS with an ultimate negative impact on education, productivity and a general reduction in life expectancy. To reverse these negative trends the Government of Botswana in its National Sexual and reproductive health program and policy Guidelines and Service Standards emphasizes the importance of addressing the developmental needs of adolescents particularly those relating to sexual and reproductive health. (Adolescent Sexual and Reproductive Health Implementation Strategy 2003: 11) The policy has created an enabling environment for an adolescent centered program by creating ideal services and

prescribed mechanism for coordinating services for this target group and the need to develop programs that give unique attention to the sexual and reproductive health needs of adolescents (Adolescent Sexual and Reproductive Health Implementation Strategy 2003: 5).

The issue of adolescent sexuality and its consequences is not new to Botswana. For a number of years there have been concerns about high teenage pregnancy and their effects on the individual and society (Rakgoasi & Campbell [SA]:1). The emergency and rapid spread of HIV/AIDS and other sexually transmitted infections among the country population has resulted in massive campaigns to sensitize people about the seriousness of sexually transmitted infections and how to minimize the risks of these infections (*Ibid*: 1).

According to Sebone (2001) it is stated that several studies have revealed high prevalence rates of unwanted pregnancies among adolescents, HIV/AIDS including other risk behaviours. Studies on knowledge, attitude and practice among the youths show that there is high level of knowledge of HIV/AIDS but not congruent with the actual behavioural practices (*Ibid*: 3).The majority of the people in Botswana experience their first sexual intercourse between ages 15 – 19 years (Botswana AIDS Impact Survey 11 Statistical Report 2005:29).In the same report it is stated that 48% of those who had ever had sexual intercourse had secondary as their highest level of school attendance.

In Botswana, like in any other Sub-Saharan country, pregnancy related school dropouts have become a matter of concern. In most cases school girls who become pregnant either have to resort to unsafe illegal abortions or they face official school expulsion (Dominique 2005: 91-110). Since independence in 1966, Botswana has experienced a dramatic expansion and improvement of educational facilities for provision of universal basic education that has resulted in a rapid increase in primary and secondary school enrollments. However, this impressive record of educational progress is hampered by high leakage rates after primary school and junior secondary school due to schoolgirl pregnancies (Ibid, 91-110). In the same study it is stated that pregnancy caused 7.8 % of the women aged 15 – 49 to drop out of primary school, as well as 19.7 % of those who attended secondary school. As for the boys no record is available to show how many leave as a result of pregnancy related cases as most girls don't reveal the males responsible for the pregnancies.

1.2.1 Statement of the research problem

Mochudi village has eight secondary schools; one senior secondary school and seven community junior secondary schools. In accordance with data collected from the schools by the researcher the total population of secondary school adolescents aged 16 to 19 years is about 3520. Every secondary school experiences dropouts due to pregnancies every year despite the availability of the youth friendly health facilities that offer adolescents sexual and reproductive health services in the village. This has posed risks of early parenting, HIV infection and ultimately school dropouts.

As for the boys no documented evidence of any sexually related school drop outs or infections were found as most students don't reveal to their teachers as girls would when they are pregnant (School heads of departments, Personal interviews, 5 & 7 June. Mochudi)

The graphs below show the 16-19 adolescent population per school, female population and number of pregnancies.

Figure 1.1: Graph Showing Population Aged 16-19 amongst Secondary Schools in Mochudi 2005-2007

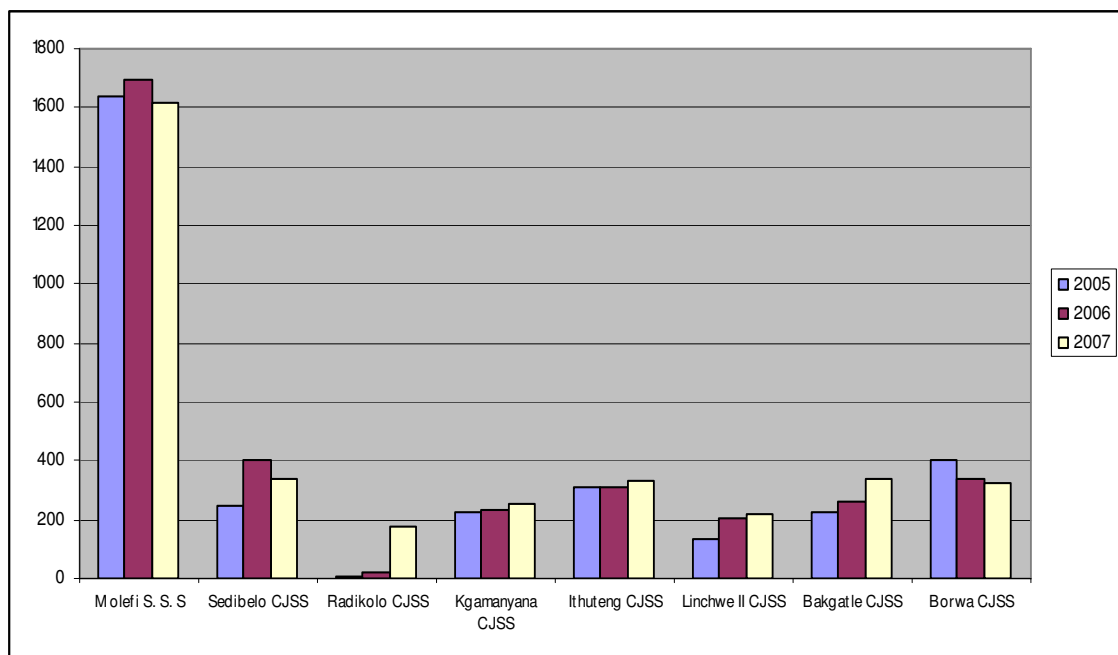


Figure 1.2: Female Population Aged 16-19 Years

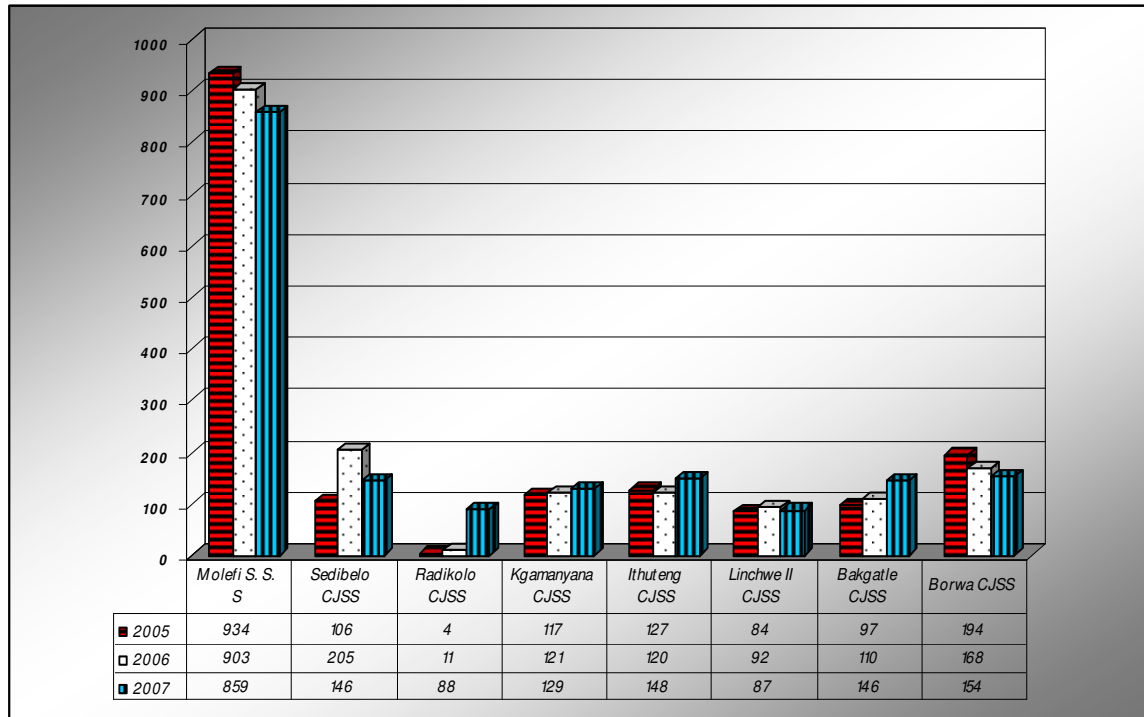
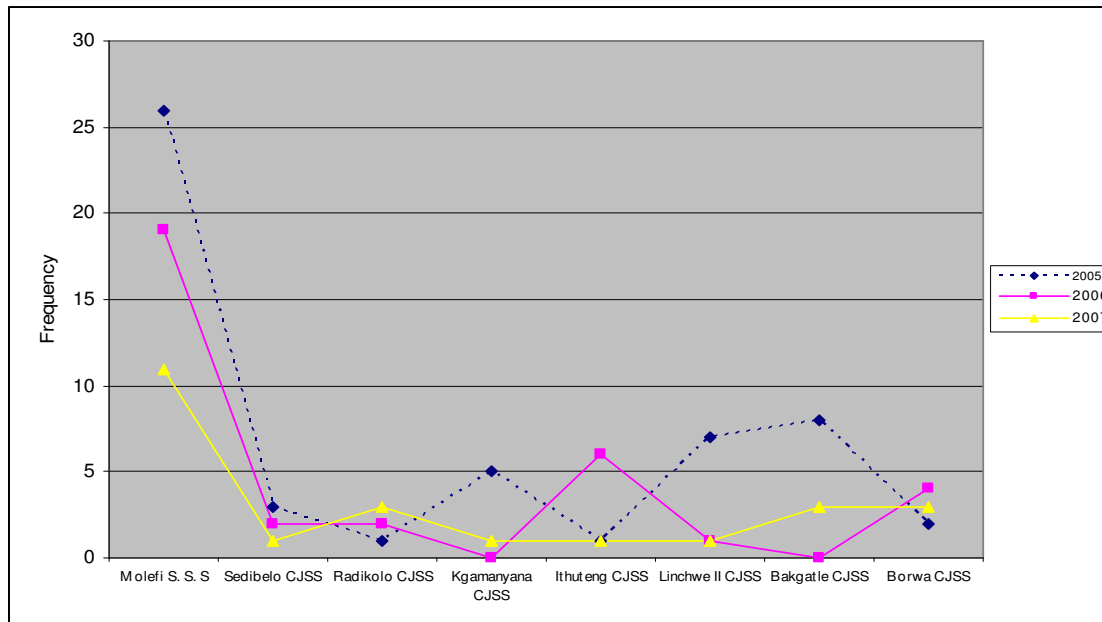


Figure 1.3: Graph showing the frequency of Pregnancies amongst Students in Mochudi 2005-2007. (NB: 2007 includes Jan- June only)



KEY

S.S.S: Senior secondary school

CJSS: Community junior secondary school

From these figures one can conclude that pregnancy cases do occur every year in the secondary schools. For example in Molefi secondary school, 26 pregnancies (2.8%) were reported in 2005. Other schools are showing an increase in pregnancy rates by 2007, for example Radikolo CJSS has recorded an increase in the number of pregnancy cases to 3(3.4%) by June 2007 as shown in figure1.3. Despite the variation in the trends among the secondary schools, pregnancy cases are eminent on yearly bases despite the availability of the adolescent sexual and reproductive health services offered in the village clinics.

1.3 AIM OF THE RESEARCH

The aim of the study was to establish the utilisation of the available adolescent friendly health facilities that provide adolescent sexual and reproductive health services by Mochudi secondary school adolescents.

1.4 RESEARCH QUESTIONS

The questions that the researcher asked were as follows:

- What is the level of awareness of the existing adolescent sexual and reproductive health services among adolescents in Mochudi?
- What factors affect the utilisation of sexual and reproductive health facilities among adolescents in Mochudi?
- What possible factors would promote the utilisation of sexual and reproductive health services by adolescents in Mochudi?

1.5 OBJECTIVES OF THE RESEARCH

The objectives of this research were to:

- Determine the level of awareness among adolescents of the existing Adolescents Sexual and reproductive health service available in Mochudi
- Identify those factors that affect utilisation of sexual and reproductive health facilities in Mochudi
- Identify possible factors that would promote adequate utilisation of sexual and reproductive health services by adolescents in Mochudi; and
- Make recommendations to service providers and policy makers on how to promote utilisation of the service by adolescents.

1.6 SIGNIFICANCE OF THE STUDY

The establishment of utilisation of the available adolescent sexual and reproductive health services and possible factors that affect the utilisation of sexual and reproductive health services by secondary school adolescents in Mochudi would assist in the planning for adolescents' reproductive health services. The rendering of adolescent sexual and reproductive health services in an appropriate way would enable the secondary school adolescents to utilise the sexual and reproductive health services thereby reducing on the cases of unwanted pregnancies, sexually transmitted infections including HIV/AIDS in the village secondary schools and ultimately reduce the numbers of infection cases in the district and nation as a whole.

1.7 DEFINITION OF KEY CONCEPTS

In this study the following key concepts or terms used have the following meaning unless indicated otherwise in the text:

Adolescent(s): These are young people who are attending secondary school and are aged between 16 and 19 years

Adolescent Friendly Health Facility/Facilities: These are facilities that offer adolescents services that are accessible, acceptable and appropriately provided in the right place and delivered in the right manner acceptable to adolescents

Sexual and Reproductive Health Services: Are services that promote a state of physical, mental and emotional well being and not merely the absence of disease in all aspects of sexuality and the reproductive system.

Utilisation: The ability to access and make use of, in an appropriate manner, the sexual and reproductive health services that are available.

1.8 FOUNDATIONS OF THE RESEARCH STUDY

The study is based on the Health Belief Model (HBM) as the framework. The model postulates that health seeking behaviour is influenced by a person's perception of the threat posed by a health problem and the value associated with the action aimed at reducing the threat. The main components of this model include perceived susceptibility, perceived severity and cost, motivation and enabling or modifying factors (Polit & Hungler 1999: 116).

Adolescents' health seeking behaviours are based on perceived benefit and costs, enabling or modifying factors that affect access and utilisation of services/facilities, influencing their decisions to seek the services.

Although the model deals with illness and sick role behaviour the discussion will also deal with health behaviour.

Butler (1994: 148) cites Becker (1974) definition of health behaviour as any activity undertaken by individuals who believe themselves to be healthy for the purpose of detecting and preventing disease in any asymptomatic stage.

In the context of the study the health behaviour is the activity undertaken by the adolescent(s) to seek sexual and reproductive health services for the purpose of preventing unwanted pregnancies and sexually transmitted infections including HIV/Aids

1.8.1 Components of Health Belief Model

The HBM consists of three distinct phases that lead up to an action related health (Butler 1994: 149)

1.8.1.1 Individual perceptions

Butler (1994: 149) describes individual perception as in two basic types: the individual subjective perception of the risk of contracting the health condition (perceived susceptibility) and perceived severity of the condition

In the study individual perceptions concern adolescents' belief of sexual indulgence and its consequences of unwanted pregnancies including sexually transmitted infections and how this would prompt them to seek the services available.

1.8.1.2 Modifying factors

According to Butler (1994: 150) modifying factors such as demographic variables (age, gender and education level) and socio psychological factors (personality and structural variable like knowledge about the condition) influence health behaviour.

In the context of the study the modifying factors include age, gender, educational level and knowledge/awareness of the existing sexual and reproductive health services/facilities.

1.8.1.3 Likelihood of action

Butler (1994: 150) cites Creswell and Newman (1989) description of the likelihood of action as follows;

“An individual’s action is determined by the balance or imbalance between the individual’s perceived positive and negative forces affecting his or her health behaviour”.

In the study the likelihood of utilisation of the sexual and reproductive health services would be influenced by factors that promote or discourage utilisation by adolescents.

1.8.2 Meta-theoretical Assumptions

Assumptions refer to basic principles that are accepted on faith or assumed to be true without proof or verification (Polit & Hungler 1995: 10). Burns and Grove (2001: 46) cite Silvia (1981) definition of assumptions as “statements that are taken for granted or considered to be true, even though they have not been scientifically tested.” The study is based on the following assumptions:

- Adolescents’ lack of awareness/knowledge of the available sexual and reproductive health services/facilities has affected the utilisation of the services.

- Service related deterrents such as attitude of service providers, inadequate resources, long period of waiting and fear prevent adolescents from utilising the sexual and reproductive health services in Mochudi.
- Distance of the clinics from schools may have affected accessibility of the services.
- The main phases of the HBM would be used to contextualise the results of the study.

1.9 RESEARCH DESIGN AND METHOD

A research design is a blueprint for conducting the study that maximizes control over variables that could interfere with validity of the findings (Burns & Grove 2001: 223). It guides the researcher in planning and implementing the study in a way that it is likely to achieve the intended goal (*Ibid*: 223).

1.9.1 Research Paradigm

Quantitative research paradigm has been used in the study. Burns and Grove (2001:42-59) defines quantitative research as the process that involves conceptualizing a research project, planning and implementing that project, and communicating the findings. This process involves identifying research problem, purpose of the study, development of a study framework and objectives. The other characteristics include review of literature, selecting a research design, identifying limitations, defining population and sample, developing a plan for data collection, analysis and communication of findings.

According to Bailey (1997:49) the characteristics of quantitative paradigm include the following

- The purpose of the study is to test theory to establish facts, allows predictions and strives for generalizability.
- The design is predetermined and structured and does not change during the course of the study
- Data gathered are quantifiable and statistical, using counts and measures. Variables are defined well ahead of time and data are managed according to the procedures in the research proposal.
- The researcher has circumscribed relationship with subjects on short term basis. The role is to observe and measure with care taken to prevent involvement with subjects for the sake of objectivity.
- The samples tend to be large requiring random selection that will be representative of the study population
- The instruments used for data collection among others do include the use of questionnaires.
- Data analysis occurs at the end of data collection and is deductive in nature. It tends to be statistically manipulated
- Finally the outcomes for the research will answer specific research questions or hypothesis by producing statistical evidence to prove a point.

Polit and Hungler (1995: 15) define quantitative studies as those that involve the systemic collection of numerical information often under considerable control and the analysis of that information using statistical procedures.

The paradigm was adopted for the study due to the following reason:

- The purpose of the study was to establish facts regarding the utilisation of the sexual and reproductive health services by adolescents in Mochudi
- A planned process of collecting, analyzing and communicating the findings was systematically planned in form a proposal.

1.9.2 Research Design

The word design implies the organisation of elements into a masterful work of art which incorporates the processes and techniques that are used (LoBiondo-Wood & Haber 1994:193).

The study was conducted in form of a survey which was both descriptive and explorative. The design used was non-experimental and quantitative in nature. In this design the researcher searches for accurate information about characteristics of particular subjects, groups, and institutions. The research attempts to relate one variable to another but not determine causation (LoBiondo-wood and Haber 1994: 235).

The purpose of descriptive studies is to observe, describe and document aspects of a situation as naturally occurs. (Polit & Hungler 1999: 195) .The advantages of this design are that a great deal of information can be obtained. If a sample is representative of the population, a relatively small number of respondents can provide an accurate picture of the total population involved. The disadvantage is that information obtained in a survey tends to be superficial, and breadth rather than depth of information is emphasized. It also requires a lot of expertise in a variety of research areas like techniques, questionnaire, and

interviewing including data analysis to produce reliable and valid study (*Op.cit:* 235).

Like descriptive, exploratory research is aimed at investigating the full nature of the phenomenon in a new area (Polit & Hungler 1999: 17-18).

This design was applied to the study in order to establish utilisation of the sexual and reproductive health services by secondary school adolescents in Mochudi. Since no study has been conducted among this population in Mochudi, the study design would assist to explore and be able to identify, describe and document the factors that influence the utilisation of the available services.

1.9.3 Research Method

1.9.3.1 Study population, sample and sampling

The study population included male and female secondary school going adolescents in Mochudi secondary schools aged between 16 and 19. According to Botswana AIDS Impact survey 11 Statistical report of 2005, the age group at which majority of residents have first sexual encounter is 15 to 19. (Botswana AIDS Impact Survey 11 Statistical Report 2005:29). However, in the study the population excluded those aged 15 years as stated in the same report because below the age of 16 years the adolescents would require parental consent in order for them to participate in the study (Moremi, 2007. Personal interview. 13 June.Gaborone). The involvement of parents in the study would not have allowed for free expression by adolescents and the likelihood of biases would have been high and hence the omission of this age group.

In the study the sampling techniques that the researcher used were cluster and convenience sampling methods.

Cluster sampling is the technique where the entire population is divided into groups, or clusters and a random sample of these clusters are selected (LoBiondo-wood and Haber 1994: 299). However, the researcher did not randomize the schools (clusters) but rather conveniently sampled 12% of the adolescents population from each school (cluster) in order to come up with a representative sample. This was done due to the sensitivity of the subject and that not every one that could have been randomised would have consented to participate.

Under convenience sampling the subjects are convenient and accessible to the researcher. The advantage of a convenience sample is that it is easier for the researcher to obtain subjects. However the major disadvantage is that the risk of bias is greater because samples tend to be self selecting, and that representativeness is questionable (LoBiondo-wood and Haber 1994: 291). . A sample size of 12% of the total adolescent population of ages 16 to 19 from each school was used. This was done because the larger the size of the sample the more representative of the population it is likely to be (LoBiondo-wood and Haber 1994: 306). The sample size that was used in the study was 417 respondents.

1.9.3.2 Data collection

The researcher used a self administered questionnaire in order to collect data from the respondents. After explaining the purpose of the study to the adolescents, the researcher distributed the questionnaires to the adolescents

who consented to participate in the study. The participants were asked to sit in a classroom and filled in the questionnaires individually to avoid influence from one another. The questionnaires did not bear any names of participants but rather numbers were used to represent the total number of participation. After the questionnaires were filled in, the researcher collected them for analysis.

1.9.3.3 Data analysis

The data was analyzed using Excel. The software was chosen because of easy accessibility by the researcher and easier to use with small sample sizes. The statistician was involved during this process. Data has been presented in descriptive form by organizing and presenting data by means of frequency tables, graphs, and pie charts. The data has been described by determining one or more of statistical values such as percentages, mode, or range where necessary. Inferences from the sample in form of inferential statistics to the population have been made in order to make speculations and reason. However generalization has not been made as the sample was not randomly selected.

1.10 DESIGN VALIDITY

Study validity is a measure of the truth or accuracy of the claim (Burn & Groove 2001: 226). According to Bailey (1997: 70) a study is valid only if investigators truly address the constructs they set out to study and measure. Polit and Hungler (1999:227) cite Campbell and Stanley (1963) definition of internal validity as 'the extent to which it is possible to make inference that independent variable is truly

influencing the dependent variable and that the relationship is not spurious.' External validity is achieved when the results can confidently be generalized to situations outside the research setting (*Ibid*: 227).

The study aim was to establish the utilisation of the sexual and reproductive health services by secondary school adolescents in Mochudi by identifying factors that influence the utilisation. By using the exploratory and descriptive designs the researcher was able to identify, describe and documents the various factors that promote or prevent adolescents from utilising the available services in Mochudi as they naturally occur. A pilot test of the questionnaire was conducted in one of the secondary schools in Gaborone city where a similar setting of adolescents' reproductive health services are, to ensure clarity of questions and consistence in methods of questioning and data collection procedure. The pilot test was done on about 10 participants. . The same questions in the questionnaire were used on the same age group in the schools in Mochudi thereby ensuring validity and reliability of the data collection tool.

Due to the sensitivity of the subject under study, random selection of subjects was not carried out rather convenience sampling was used because not every randomly selected adolescent would have consented to participate. All schools were involved in the study with each school contributing 12 percent of its adolescents to the study sample. The purpose of the study was made known to the students and the 12 percent participation from each secondary school was purely on voluntary basis. Therefore, the findings of the study are representative

of all the secondary schools in Mochudi. However, generalisation of the findings will not be made to all other secondary schools in Kgatleng district or the entire country due to the nature of the design used.

1.11 ETHICAL CONSIDERATIONS

Ethics is a branch of philosophy that deals with morality (Burns & Grove 2001:76). The problems of ethics relate to obligation, rights, right and wrong, conscience, justice, choice, intentions and responsibility, with rational ends that reflect respect for the other person (*Ibid: 76*).

1.11.1 Protecting the rights of the respondents

Before every respondent could complete the questionnaire, an explanation regarding the purpose of the study was made. The respondents were asked to feel free to participate in the study or not. Time for questions and any clarifications on the study was given. Each participant signed consent prior to completing a questionnaire. The signed consent forms were collected separately from every respondent and were kept in a different bag from the anonymously completed questionnaires. No signed consent was linked to any of the questionnaires. The respondents were asked not to write names or initials including mobile cell phone numbers on the questionnaires for the sake of anonymity. The respondents were also assured that no name would be published in the report and that all their information would be treated confidentially. Contact information for the researcher was given to them for those who would wish to obtain a copy of the research report.

1.11.2 Protecting the rights of the Institutions

In order to undertake the study in the schools, permission in form of a letter was obtained from the Ministry of Education through the office of the Chief educational officer (See Annexure No.3). Each school was presented with a copy of the letter. Appointments were made with each school and each school determined the convenient time that would be appropriate for the research in order to avoid inconveniencing the primary job. The researcher's contact information was given to each school in case any questions and clarifications were to be made.

1.11.3 Scientific integrity of the research

The awareness of the need of maintaining the integrity of the study has been outlined to the researcher (Burns & Groove 2001:354-355). Integrity is the extent to which the intervention was implemented as designed (*Ibid*, 354-355). The knowledge generated from the study has been documented through honest conduct, reporting and publication of the results.

1.12 SCOPE AND LIMITATIONS OF THE STUDY

This study was conducted in the village of Mochudi, Botswana. The results obtained from the study, may not be representative of other villages in Botswana or elsewhere. The structured tool for the data collection unknowingly made some respondents uncomfortable because of the sensitivity of the subject and especially that probing was not done on issues that needed clarification. Few

other respondents' did not complete the whole questionnaire despite volunteering to participate.

1.13 STRUCTURE OF THE DISSERTATION

The layout of the study report has been presented in dimensional forms using chapters. In each chapter detailed description of activities has been made in accordance with the processes conducted. The content of each chapter is presented as shown below;

Chapter one: In this chapter the research report has looked at the introduction, background information to the problem, research problem, and significance of the study, the purpose, research objectives and definition of the key concepts that have been used in the study. Others include the research foundations, the design and paradigm, research method, validity and ethical considerations.

Chapter two: The literature reviewed from global, regional and local perspectives on the adolescents' sexual and reproductive health findings has been outlined in this chapter. It focused on the risks that adolescents encounter due to pre- marital sexuality, contraceptive knowledge and use and accessibility to sexual and reproductive health services.

Chapter three: The chapter contains the methodology that the researcher used in the study and it includes the design, the population, sampling techniques and method of data collection. Measures that the researcher used to ensure validity and reliability have also been presented in this chapter.

Chapter four: This chapter has outlined the research findings from data analysis. The presentation is in form of frequency tables, graphs and cross tabulation where applicable.

Chapter five: Contains the conclusions and recommendations made from the study, some limitations experienced and the bibliography.

1.14 SUMMARY

In this chapter, description of Botswana in terms of its surface area and the population of the country have been made. Mochudi as the study setting has also been looked at in terms of its population, number of secondary schools and the health facilities. The background to the research problem has focused on the current health state of the country as being one of the highest as regards the number of HIV/Aids cases. The country's reproductive health structure has been described as being more biased to maternal and child health/ family planning as opposed to being accommodative to other cadres like adolescents. Other inclusions in the chapter are the statement of the problem which has focused mainly on the dropout rate due to pregnancies of secondary school adolescents in the village, the aim of the research, objectives and the significance of the study and the operation definition of key concepts that have been used. The research study has been founded on the health belief model and contents of the model have been described. The chapter has further looked at the research design, the research methods and ethical considerations as related to the study, and finally the structural presentation of the entire research report.

CHAPTER 2

Literature Review

2.1 INTRODUCTION

Literature review is traditionally considered a systematic and critical review of the most important published scholarly literature on a particular topic (LoBiondo-Wood & Haber 1994:110). The purpose of this chapter, then, is to introduce the literature reviewed on adolescents' sexual and reproductive health service utilisation from a global, regional and national (local) perspective so as to place it in context and to indicate what other researchers and authors have to say about it.

2.2 PURPOSE OF LITERATURE REVIEW

LoBiondo-Wood & Haber (1994:111) cites Glass (1991) and Kirchhoff (1991), providing an explanation of the overall purpose of a review of literature. It is stated that the purpose of conducting a literature review is to discover knowledge and to develop a strong knowledge base to carry out further research. It also provides information regarding other non-research scholarly activities and information which may assist in further research on a particular topic. Such knowledge and information could contribute to the writing of a scholarly paper and could also contribute to the development and design of further research studies.

The other reasons for conducting review of literature are said to assist in the investigation of a particular topic, although not necessarily in the same way the new researcher intends to carry out his/her study but it could benefit him/her. It assists in determining an appropriate research design for answering the research question (Bailey 1997:12).

2.3 SCOPE OF THE LITERATURE REVIEW

In the study of the available literature on adolescent sexual and reproductive health services, the researcher looked at various studies and reports conducted all over the world including the country of the study (Botswana). Reproductive health services have been reviewed by looking at how sexually active adolescents are in terms of age at first sexual intercourse, the risks encountered as a result of their sexuality, the utilisation of the services and any possible hindrances encounter when seeking services.

2.4 A REVIEW OF THE LITERATURE

The literature is presented according to themes as derived from global, regional and national (local) perspectives as follows;

- Pre-marital sexuality among adolescents
- Sexual risks associated with pre-marital sex among adolescents
- Contraceptive knowledge and use
- Ability to access reproductive health services

2.4.1 Pre-marital sexuality among adolescents

Through out the world young people begin their sexual activities before and within marriage with inadequate information to protect their reproductive and sexual health. Over one billion young people between the ages 10 and 24 years live in developing countries. Yet there still continues to be a lag in the information on their sexual and reproductive health needs (Jejeebhoy, Shah & Yount 1999: 9).

In Korea, 24 percent of male and 11 percent of female secondary school adolescent students reported to have had pre- marital sexual intercourse (Gubhaju 2002: 8).

In the same report, it is revealed that among sexually experienced adolescents, majority of women had their first intercourse with a steady boyfriend with marriage in mind, while a significant proportion of males had their first sexual experience with a commercial sex worker or a casual friend.

In Malaysia, a study on the reproductive health of adolescents (aged 13- 19) revealed that 40 percent of respondents had begun dating from the age of 13 years. By the age of 18years, 84 percent of adolescents had started holding hands, 85 percent kissing and 83 percent petting. Of these 18.4 percent had their first sexual contact between 15 and 18 years (*Ibid*: 8).

Acceptance of gender – based double standards by young females and male has been accepted in some parts of the world. According to some quantitative and qualitative case study findings carried out in some countries confirms this.

In Argentina, it is the belief that male sexual urges are uncontrollable and explains the greater need that men have for casual sexual relations (Jegeebhoy et al 1999:92).

A case study among University students in the Philippines argued that men should have experience and that if a man does not get quite a lot of experience before marriage he will want even more after marriage. It is social expectation that men can go anywhere, do whatever they like and even try sex. The findings suggest that young females and males accept and sometimes justify double sexual standards. The evidence from these is that adolescents do get involved in premarital sex (*Ibid: 92*).

In Canada, adolescents are reported to be sexually active, with sexual experience at an early age (Langille 2000: 5). During the Canadian Youth and Aids National study conducted among the grade 7, 9 and 11, and first year college and university students, 26 percent of grade 9 and slightly less than 50 percent of grade 11 students had had sexual intercourse at least once (*Ibid: 5*).

In India, according to the working paper of MAMTA, a non-governmental organisation on 'sexual behaviour among adolescents', it is reported that there is rising incidence of pre-marital sex of up to 28 percent among females and males

adolescents (Mago, Ganesh, & Mukhopdhyay 2000:10). The study also revealed that young men are under pressure to perform and prove their virility.

In another survey conducted in Brazil by the Brazilian centre for analysis and planning of the Ministry of Health from December 1997 to December 1998 shows that among young people 16 to 19 old, 16 percent had already engaged in sexual relations. Among those, 40 percent said their first time was before 15. It is also reported that boys had sex earlier than girls (Reboucas 2002:1)

The 1994 young adult fertility and sexuality among Philippines study showed that some 18 percent of the youth were engaged in pre- marital sex, with higher levels of pre-marital sex at 26 percent among males as compared to 10 percent among females (Gubhaju 2002: 10). This study also reveals that there has been very little change in the level of pre- marital sex among females over the previous 12 years, declining slightly from 11.5 percent in 1994. The average of sexual debut is 18 years for girls and 18.3 years for boys.

In Thailand, a study was conducted in 21 private and government secondary schools, and the findings were that nearly one third of male students in grade 12 were sexually active (*Op.cit.*: 1). In another study among the final- year secondary school students, as stated in the same report, does show that 40.6 percent of males and 6.6 percent of females had experienced sexual intercourse, with average at first sexual intercourse being 16 years for boys and 18 years for girls.

In Ghana, according to the 1998 Ghana demographic health survey conducted, it is stated that adolescents generally begin their sexual activity in their middle to late teens and the median age for first sexual intercourse being 17.6 years (Kofi, Bannerman, Johns, Miller & Nerquaye-Tetteh 2002: 32). It is further stated that among the women that were aged 25 to 59, many had pre-marital sex as adolescents.

In another demographic health survey conducted in Uganda showed that young people in Uganda start sexual activities at an early age, with an increase in the median age for first sex among adolescent of 16 years in 1998 - 1999 to 18.3 years in 2000 – 2001 (Neema, Musisi, & Kibombo 2004:13).

In 1999 Cote d`voire study conducted in two rural and two urban health districts with a total population of about 160 000, including about 24000 adolescents, revealed several interesting findings: Adolescents clearly need sexual and reproductive health services. Half of all adolescents attending general health facilities reported having sexual experience, with an average age of sexual debut of 25 years. 33% of all women requiring deliveries services were adolescents (Jegeebhoy et al 1999: 95).

In Botswana, national studies report the average age of sexual debut to be 17.2% and the estimation of 26% adolescent females, 15-19 years as being

sexually active (Adolescent Sexual and Reproductive Health Implementation Strategy 2003:8).

The foregoing findings from the studies clearly indicate that adolescents all over the world are sexually active and engage in pre - marital sexual activities. Therefore, sexual activities and their consequences cannot be detached from this population.

2.4.2 Sexual risks associated with pre-marital sex among adolescents

It is important to recognise the growing incidence of pre- marital sexual activity among adolescents owing to the widening gap between age at menarche and age at marriage. As most acts of pre-marital sexual intercourse are unprotected, sexually active adolescents are increasingly at risk of contracting and transmitting sexually transmitted infections (STIs), including the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) (Gubhaju 2002:2).

The sexually experienced adolescents are typically unaware of the consequences of unprotected sexual intercourse and are poorly informed of their sexuality and means of protecting themselves, often leading to unwanted pregnancies and abortions (*Ibid: 2*).

Adolescent pregnancies mostly are unintended and usually result in low birth weight infants and pre-term delivery and high infant mortality rate (Understanding Sexual and Reproductive Health among Street Children [Sa]: 9).

In Canada and Nova Scotia, other effects of adolescent pregnancy identified include social consequences like decreased potential with respect to education, employment and economic opportunities (Langille 2000:8). According to the same report, it is stated that babies born to mothers aged between 15 and 17 in comparison with those above 20 years, often have less supportive home environments, poorer cognitive development and health, and that they are more likely to become adolescent mothers themselves.

The United Nations Fund for Population Activities (UNFPA) reports that one of the most sensitive issues associated with adolescents is sexuality and that they are vulnerable to sexually transmitted infections including HIV/Aids, substance abuse, sexual exploitation and violence. (Future Generations Ready for the World 2002: 1).

In Brazil, early pregnancies are the main reason for school drop outs since majority of the girls choose to leave school because of stigma associated with early pregnancies (Reboucas [Sa]: 1). This problem is seen to be acute among poorer sectors of the society where young mothers quit school so that they work to provide for the child (*Ibid*: 1).

In another quantitative and qualitative study that was conducted in Ghana-Dodowa, among adolescents in senior secondary schools (SSS) and junior secondary schools, the findings were that dropping out of schools were largely

attributed to inability to pay school fees and pregnancies for girls (Afenyadu, & Goparaju 2003:6-8).The findings further indicate that sex for money, pleasure and peer pressure were some of the reasons for indulging in sex. In the same report unprotected sex among the adolescents was found to be common.

From both the quantitative and qualitative data findings non use of condoms as well as other contraceptives was found to be common

Unwanted adolescent pregnancy and child bearing and the associated consequences pose a serious public health concern.

In Uganda complications of pregnancy, abortions and childbirth are the leading cause of disability and death among women between ages 15 and 19 (Neeman, Musisi & Kibombo 2004: 15). In another study by Mirembe showed that 68 % of abortions occurred among 15 -19 year old in the local teaching hospital in Uganda, 9 % of male adolescents had been involved in an abortion by helping their girl friends to abort (*Ibid*: 15).

According to the Social Marketing for Adolescent Sexual Health (USAID 2000:5), the Sub-Saharan African region has about 630 million people with one third of the population aged between 10 and 24. This represents a group that is increasingly vulnerable to health risks. The Human Immunodeficiency Virus (HIV) has hard hit sub-Saharan Africa and today it is a home to 22 million HIV positive (HIV+) men and women. More than half of all new HIV infections are among young people aged 15 to 24. Young people are also at risk of unintended

pregnancies and sexually transmitted infections (STIs) because they are sexually active. Additionally, 10 to 18 percent of African women in this age group give birth every year and many young women have unintended pregnancies that result in unsafe abortions.

In many Sub –Saharan African countries, there are concerns about the high rates of pregnancy- related school dropouts.

A family health survey conducted in Botswana in 1998 revealed that the impressive record of educational progress is being hampered by high ‘leakage’ rates after primary and junior secondary school due to pregnancies (Dominique & Ghyasuddin 1996:1). The study further shows that pregnancy caused 7.8% of women aged 15 – 49 to drop out of primary school, as well as 19.7% of those who attended secondary school (*Ibid*: 1).

From the preceding analysis, it is evident that adolescents experience a lot of Bio psycho social problems as a result of their sexuality and therefore sexual and reproductive health of adolescent have emerged as an issue of great concern.

2.4.3 Contraceptive knowledge and use

There is a consensus in literature that adolescents are particularly vulnerable to sexual and reproductive health risks due to factors such as their young age, ignorance of matters related to sexuality and reproductive health, lack of factual knowledge about contraception and their inability or unwillingness to use most family planning and health services (Mago, Ganesh, & Mukhopdhyay 2005:8).

In Canada, adolescents become pregnant each year and a significant number of these pregnancies are unintended despite reporting having used protective measures at last sexual intercourse, the use of contraceptives is far from being consistent (McKay 2004: 77). This report specifically identified the behavioural tendency for adolescents and young adults to abandon condoms in the process of initiating oral contraceptives.

In Asia, low level of contraceptive use among 'sexually active adolescents' has been reported. For example, among Vietnamese college students, only 32 percent of females and 28 percent of males used a contraceptive method at first sexual intercourse (Gubhaju 2002:9). The report further states a study that was conducted among the countries, and revealed that adolescent girls' knowledge was as high as 90 percent but only 10 percent were found to use any form of contraceptives.

In the Lao people's Democratic Republic, out of sexually experienced adolescents aged 15 and 25, as many as 79 percent did not use any contraceptive methods at first sexual intercourse (*Ibid*: 9)

The Adolescent sexual and Reproductive health report in Bangladesh cites Bakar and Abul (2001) that over 50% of unmarried adolescents and youths did not use condoms during first pre- marital intercourse despite the increasing number of risks (Adolescents Sexual & Reproductive Health in Bangladesh [Sa]: 44)

A study conducted in Mexico reveals that several pregnant adolescents continued with pregnancy for want of financial resources and reluctance to approach family for necessary resources. Fear of losing partners has emerged from some studies as being a factor that inhibits young women from exercising choices, use of contraceptives or condoms (Jejeebhoy et al 1999:92).

In Bangkok, Thailand female students pointed out that women have less power to bargain because they think that if they can have sex with their boy friend they would keep them forever(*Ibid*:92).

In Benin, field work research for situational analysis was conducted in 2005 by young people. The main findings discovered that boys and girls of all ages have much knowledge about sexual and reproductive health, but discussions about sexuality and HIV showed that young people hardly ever use health services (Plan Benin [Sa]: 2)

According to the Sexual health experiences of adolescents conducted in three Ghanaian towns, young people have substantial gaps in their knowledge on reproductive health (Kofi et al 2002:32).

Nearly all respondents (95%) claimed awareness of at least one way to avoid pregnancy. However, when they were asked to describe how to use a condom, only 48% could identify the correct way to use a condom.

In Uganda's recent demographic health survey conducted from 2000 – 2001, it was found that while contraceptive knowledge among adolescents was high, the level of actual use among sexually active adolescents is low (Neeman et al 2004:16)

According to Social Marketing for Adolescent Sexual Health by USAID (2000) in Cameroon, Guinea, South Africa and Botswana, it reveals that while youths / adolescents are aware that condoms are the best way to protect themselves from HIV / AIDS and sexually transmitted infections, many still believe that condoms are for prostitutes. They also described use of condom to a partner to imply lack of trust and may suggest that one is infected. A young Guinean woman stated that people who like using condoms are those who are sick and are trying to avoid disclosing their illness (USAID 2000:5-6).

Other adolescents perceive sexual intercourse with condoms as less pleasurable, artificial or too indirect (*Ibid*: 6).

In Botswana adolescents precede contraception use. Ninety seven (97%) of girls 15-19 surveyed knew at least one method. Contraceptive use varies with the level of education with 40% among women who had secondary and tertiary education and 17% among women with no education (Adolescent sexual and reproductive health Implementation strategy 2003:8).

Sebone (2001: 3) cites several studies of Ball (1998), Ahmed (1989) and Sentinel Surveillance (1999) that there is high prevalence of unwanted

pregnancy, HIV/AIDS and other risky behaviours like early initiation of sexual intercourse among adolescents in Botswana. She further cites the World health organisation/ University of Botswana KAP study (2000) which states that there is high knowledge (e.g. HIV awareness of 95%). However, this knowledge has not been found to be congruent with their actual practices (*Ibid: 3*)

The findings from the various studies outlined above, therefore, indicate that knowledge of contraception alone does not predict actual use. Despite the improvement in knowledge/ awareness, there seems to be no change in behaviour, indicating that the relationship between knowledge and behaviour is complex.

2.4.4 Ability to access reproductive health services

A number of studies have been carried out in order to establish how much adolescents access the reproductive health services in view of their knowledge regarding contraceptives and the risks of premarital sexual indulgency.

Fear of disclosure is one factor surfacing. Young females and males fear disclosing their sexual activity and this result in reluctance among this target group to report sexual experience. For example the leading reason cited by pregnant young women in Shanghai, China for non-use of contraception's was fear of disclosure or embarrassment (Jegeebhoy et al, 1999:92).

This also may inhibit sexually active adolescent from seeking contraception and other reproductive health services. This ultimately prevents pregnant adolescents from seeking family support and a safe resolution to pregnancy.

The report further states that evidence regarding young women's' fear to disclose their pregnancy states to the family surfaced from various studies conducted among Abortion seekers in china in Sichuan province; 40% were too shy to confide in parents. In Korea, another study was conducted among young women who were working in an export promotion zone; 33% stated the same reason. Fear of disclosure to the family can also limit access to resources needed for a safe abortion (*Ibid: 92*)

In Chile , the American Medical Women's Association states that although school officials were concerned about adolescents pregnancy, they were resistant to being seen as promoting contraception and worried that such promotion might increase sexual activity, particularly among young women (Grizzard, Gonzalez, Sandoval & Molina 2003: 208)

In other places, studies have revealed that adolescents are neither well received nor comfortable in mainstream family planning clinics which are mostly government owned maternal and child health/ family planning (MCH/FP) facilities. And that many young people often feel unwelcome citing that they encounter providers who are judgmental, who treat them rudely or who deny them services (Erulkar, Onoka & Phiri 2005: 52).

In 1999 Cote d'ivoire study conducted in two rural and two urban health districts with a total population of about 160 000, including about 24000 adolescents, revealed several interesting findings:

Adolescents clearly need sexual and reproductive health services. Half of all adolescents attending general health facilities reported having sexual experience, with an average age of sexual debut of 25 years. 33% of all women requiring deliveries services were adolescents. Yet, there is considerable underutilisation of reproductive health services. The obstacles that emerged in this study were poor quality of care for adolescent at the health centers, persistent absenteeism of staff, long waiting period, high cost of consultation and care, unfriendly treatment by the staff and lack of privacy at the facilities. About 18% of male adolescents and 13% of females reported uncaring treatment by providers (Jegeebhoy et al 1999:92-93).

Other barriers that were identified in Uganda were that lack of knowledge about how to use condoms, costs, availability, fears and distrust about condom effectiveness including the fear that condom themselves are the sources of HIV viruses (Neema et al 2004:16).

On the other hand attitudes and social norms appear to be more important barriers to reproductive health than lack of knowledge alone. In Ghana , condoms are generally available at either low cost or no cost through drug stores, clinics, community based health workers and peer educators, but social

and religious barriers may constrain when accessibility and cost may not (Kofi et al 2002:38).

In another study conducted in Dakar, Senegal on the adolescents' accessibility to reproductive health services among mystery clients, the young people were sent away and asked to go to pharmacies, others were asked just to focus on studies. Other findings were that they felt afraid, embarrassed or disappointed with the kind of reception they received (Nare, Katz &Tolley 1997:4)

In Lesotho service gaps have been found to exist concerning the provision of reproductive health services for female adolescents and youths. According to the same report services are reported not to be user friendly, although adolescent reproductive health services corner had been opened in almost all hospitals. They were perceived as antenatal clinics and are therefore not accessible to the non-pregnant youths. In another baseline study in Lesotho reported that teenagers (13-19) formed 13% of all hospital admissions, 23% premature deliveries while 23% of all antenatal care visitors ((W.H.O Southern Africa Multi-Country Case Study [Sa]: 33)

In Swaziland comprehensive reproductive health programs to enhance the reproductive health of adolescents are seen to be lacking. Services are also seen not to be friendly including unfavorable attitudes of the health care providers (Jegeebhoy et al 1999:92)

The same report has outlined other studies that have been carried in some countries. For example, a study conducted in Tanzania, more than one-third of providers placed restriction on condom distribution based on age while in Ghana and Nigeria young clients were neither treated with same level of respect as older clients nor were they given detailed information as their older counterparts. In another survey conducted in Zimbabwe young people were also asked if there had been time when they wanted to get reproductive health services but could not do so, majority of the adolescents did not obtain the services because they did not know where to get such services, others failed because the services were too expensive and that the clinics were too far. Shyness and fear were also significant reasons for not seeking the services (*Ibid*: 92).

2.5 SUMMARY

From the foregoing literature review it is evident that all over the world adolescents indulge in pre-marital sex at an early age. A number of risks as a result of pre-marital sex like sexually transmitted infections, abortions, dropping out of schools and other socio-economic problems have surfaced from studies. Despite the awareness of some of the risks and reproductive health services, the adolescents' behavior is contrary. Factors that prevent adolescents from utilising the available sexual and reproductive health services have also surfaced such as fear of disclosure/ embarrassment or shyness, sexual indulgence for financial resources and fear of losing one's sexual partner and lack of knowledge on how to use a condom. Other reasons have been related to poor quality of services, unfriendly attitude by providers of services and also fear of being questioned by

the nurses. Lastly in this review, most adolescents perceive condom use as for prostitutes, infected people and implying lack of trust for your partner.

CHAPTER 3

Research Design And Methodology

3.1 INTRODUCTION

This chapter involves the design of the research and the methodology that was employed in the research project. It also includes those aspects which assisted the researcher in obtaining the necessary information to complete this research.

The word 'design' implies the organisation of elements into a masterful work of art which incorporates the processes and techniques that are used to reach this goal (LoBiondo- Wood & Haber 1994:193). A research design provides the glue that holds the research project together and is used to structure the research and to show all the major parts of the research project (Trochim 2006:1). It can also be said that the purpose of a research design is to provide a plan for answering the research questions and serves as blue print in which the control mechanisms are contained that one would use in the study so that the answer(s) to the question(s) would be clear and valid (Brink & Wood 2001:99).

The study was conducted in the form of a survey which was both descriptive and explorative. The design used was non-experimental and quantitative in nature. In this design the researcher searched for accurate information about characteristics of particular subjects, groups, and institutions. The research

attempted to relate one variable to another but not determine causation (LoBiondo-Wood & Haber 1994: 235).

The purpose of a descriptive study is to observe, describe and document aspects of a situation as it naturally occurs (Polit & Hungler 1999:195). The advantages of a design of this nature are that a great deal of information can be obtained. If a sample is representative of the population, a relatively small number of respondents can provide an accurate picture of the total population involved. The possible disadvantage is that information obtained in a survey tends to be superficial, and breadth rather than depth of information is emphasised. It also requires a lot of expertise in a variety of research areas like techniques, development of a questionnaire, and interviewing skills, including data analysis to produce a reliable and valid study (*Op.cit*: 235). In order to avert this scenario, a questionnaire was developed and pre-tested in another setting in order to establish validity and reliability of the tool. A study is valid only if investigations are truly addressing the constructs they are set to study and measure and it is reliable if, when it is repeated, similar findings are produced (Bailey 1997:71). The same tool was used in the study setting after corrections were incorporated in the questionnaire. A statistician was involved in the formulation and correction of the tool before it was applied to the main study population in Mochudi.

Regarding applicability it can be stated that applicability entails how valid or relevant the study is to the real life situation. For example: how useful in the

clinical area the study would be (*Ibid*: 71). With the number of pregnancies prevalent in the schools, the study would assist the nurses, health care providers, and other service providers directly involved with adolescents to devise approaches that could be adopted in order to protect them from unwanted pregnancies including sexually transmitted infections (STI's).

3.2 THE RESEARCH DESIGN

A research design provides the glue that holds the research project together and is used to structure the research in order to show all the major parts of the research project (Trochim 2006:1). The study was conducted in the form of a survey which was both descriptive and explorative.

A survey is designed to obtain information from populations regarding the prevalence, distribution and interrelations of variables within that population and obtains information from the populations or a sample of a particular population by means of self report (Polit & Hungler 1999:200-201). In a survey data can be collected in a number of ways that include telephone interview, personal interviews and interviews which could be used by the researcher to interview a respondent or in the form of a self administered questionnaire where the respondent completes the questionnaire without any assistance or interference from the researcher (*ibid*: 201).

Exploratory - descriptive designs usually are field studies in the natural setting that provide the least control over variables and the data collected can either contribute to development of theory or in explaining phenomena from the

perspective of the persons being studied (Brink & Wood 1998:283). The purpose of an exploratory design is to study that which has not been studied in order to gain insight, understanding and meaning (*Ibid*: 283).

The study was also descriptive in nature. The purpose of descriptive research is the exploration and description of phenomena in real-life situations, and is used to generate new knowledge about concepts or topics about which limited or no research has been conducted before (Burns & Grove 2001:52).

In this type of design data are described, organised and summarized in the form of frequencies, percentages, description of central tendency (mean, mode, and median) and description of relative position, for example: range (Bailey 1997: 120).

This study was non-experimental and quantitative in nature. In this design the researcher searched for accurate information about characteristics of particular subjects, groups, and institutions. The research attempted to relate one variable to another but not determine causation (LoBiondo-Wood & Haber 1994:235).

In an experimental design the purpose would be to examine cause and effect relationship between independent and dependent variables under highly controlled conditions (Burns & Grove 2001:55). In experimental design there is

also manipulation and control of variables, and random selection of subjects under study to further enhance the data that is obtained (Bailey 1997:47).

The goal of this study was to establish the utilisation of the available adolescent friendly health facilities that provide adolescent sexual and reproductive health services to adolescents from Mochudi Secondary Schools. The intention was to establish the utilisation of the services in this particular area because it had not been done previously. The aim was to determine factors that either promoted or prevented adolescents from utilising the available sexual and reproductive health services in Mochudi.

The study involved human characteristics in the natural setting and no manipulation of the variables was done. The study's main objective was to explore and describe the phenomenon under study. According to Polit and Hungler (1999:193) in nursing research, as in other fields in which human behaviour is of primary interest, numerous variables could technically be manipulated but should not be manipulated for ethical reasons. For example, ethical standards require researchers not to put participants in a situation where they might be at risk of harm (Trochim 2006:2). According to Trochim (2006), the principle of voluntary participation requires that people are not coerced into participating in research (*Ibid: 2*).

To establish utilisation of reproductive health services among adolescents by allowing one group of students to have access to the services while denying another group would precipitate a lot of health risks that may cause harm to the adolescents' lives. Further, in experimental studies randomization of participants would have been done. Due to the sensitivity of the study, the researcher would not have been certain that the randomised adolescents would have all participated in the study willingly.

Therefore the phenomena of interest could not be studied experimentally.

3.3 RESEARCH METHODOLOGY

Research methods include the steps, procedures and strategies for gathering and analysing the data in a research investigation (Polit & Hungler 1999:709). The study was of a quantitative nature. Quantitative research is a formal, objective and systematic process in which numerical data are utilised to obtain information about the world (Burns & Grove 1993:26).

A research proposal was developed which included the entire methodology that outlined the process of data collection in order to establish the utilisation of sexual and reproductive health services by adolescents in Mochudi.

A research proposal is a written document specifying what the investigator proposes to study and, therefore, is written before the project has commenced. It is used by the researcher to communicate the research problem, its significance, and planning procedures for solving the problem(s) to be investigated

(Polit & Hungler 1999:671). The researcher employed all the outlined steps in the proposal in the establishment of the extent of utilisation of the available services in the village by secondary school adolescents as explained below:

Research objectives were developed by the researcher in the proposal. These are clear, concise and declarative statements that are expressed in the present tense, whose purpose is to bridge the gap between more abstractly stated research problem, purpose, detailed design, plan for data collection and analysis (Burns & Grove 2005:156).

The objectives were to:

- determine the level of awareness among adolescents of the existing adolescent sexual and reproductive health services in Mochudi
- identify those factors that affect utilisation of sexual and reproductive health facilities in Mochudi.
- identify possible factors that would promote adequate utilisation of sexual and reproductive health services by adolescents in Mochudi and
- make recommendations to service providers and policy makers on how to promote utilisation of services by adolescents.

The specific meanings of terms in the study need to be made clear to the reader and therefore terms need to be defined or operationalised (Bailey 1997:78)

In the proposal the researcher identified some concepts/ terms to have the following meaning unless otherwise indicated in the text, as follows:

- Adolescent(s): These are young people that are attending secondary school and are aged between 16 and 19 years.
- Adolescent health friendly health facility/ facilities: These are facilities that offer adolescent services that are accessible, acceptable and appropriately provided in a right place and delivered in the right manner acceptable to adolescents.
- Sexual and Reproductive Health Services: are services that provide a state of physical, mental and emotional wellbeing and not merely the absence of disease in aspects of sexuality and the reproductive system.
- Utilisation: the ability to access and make use of, in an appropriate manner, the sexual and reproductive health services that are available.

Under methodology, the design that the researcher proposed to undertake the study was in form of a survey which would be descriptive and explorative, non experimental and quantitative in nature. In this design the researcher searches for accurate information about characteristics of particular subjects, groups and Institutions. The researcher attempts to relate one variable to another but without determining causation. (LoBiondo-Wood & Haber 1994:235). The researcher settled for this design with the view of the advantage of great deal of information that could be obtained even when the representative sample of the population is

relatively small. The disadvantage is that information obtained in a survey tends to be superficial rather than depth of information is emphasized and that it requires a lot of expertise in a variety of research areas like technique, questionnaire, interviewing and data analysis (*Ibid*: 235).

In view of this the researcher involved the statistician in the formulation of the questionnaire and data analysis.

Regarding the study population, the researcher planned to include male and female secondary school adolescents in Mochudi village aged 16 to 19 years. Any secondary school adolescent that was aged less than 16 could not be included in the proposed study because below the age of 16 would have meant having parental consent in order for the adolescents to participate in the study (Moremi, Personal interview. 13 June. Gaborone). The involvement of parents would not have allowed for free expression by the adolescents due to the sensitivity of the subject under study and the likelihood of biases would have been high. Therefore this age group was excluded.

The sampling techniques that were outlined in the planned study are cluster and convenience sampling methods.

Cluster sampling is where the entire population is divided into groups or cluster, and random sample of these clusters are selected (LoBiondo- Wood & Haber 1994:299). However, the researcher did not plan to randomise the schools

(clusters) but rather conveniently sample 12% of the adolescents population from each school (cluster) in order to come up with a representative sample. This was considered due to the sensitivity of the subject and that not everyone that may be randomly selected would participate.

Under convenience sampling the subjects are convenient and accessible to the researcher. The advantage of a convenient sample is that it is easier for the researcher to obtain subjects. However the risk of bias is greater because samples tend to be self selecting, and that representativeness is questionable (LoBiondo- Wood & Haber 1994:291).

A sample size of 12% of the total population of ages 16 to 19 from each school was to be used. This is so because the larger the size of the sample ,the more representative of the population it is likely to be (LoBiondo-Wood and Haber 1994:306) The sample size that was proposed was 417 respondents.

Regarding data collection, the researcher planned to administer a self administered questionnaire to any secondary school adolescent aged 16 -19 years who would consent to participate in the study. A questionnaire is a printed self report form designed to elicit information through a written response of the subject (Burns & Grove 2005:398).

After explaining the purpose of the study to the adolescents, the researcher planned to distribute the questionnaires to the adolescents who would consent to participate in the study. All participants would sit in a classroom and be given the questionnaires to fill individually to avoid influences from one another when

answering them. The questionnaire would not bear names but rather numbers that would represent the total number of participation. After filling the questionnaires the researcher would collect them for analysis.

In order to ensure validity and reliability of the study, a pilot study was included in the proposal. This is a preliminary trial of the study that is performed before the final study (Bailey 1997:183). The researcher planned to conduct the pilot test in one of the secondary schools in Gaborone city where a similar setting of adolescents' reproductive health services are, to ensure clarity of questions and consistence in method of questioning and data collection procedure. The pilot test was planned to be carried out on 10 participants. The same questions in the questionnaire would be used among the same age group of adolescents in Mochudi thereby ensuring validity and reliability of the data collection tool.

The researcher intended to analyse the data using Excel. The software was chosen because of easy accessibility by the researcher and easier to use with small sample sizes. The researcher planned to involve the statistician during the process. Data would be presented in descriptive form by organizing and presenting data by means of frequency tables, graphs and pie charts. Data would be described by determining one or more statistical values such as percentages, mode or range where necessary. Inferential statistics to the population would be made in order to make speculations and reason. Data would be looked at from the perspective of the following scale of measurement:

- Nominal: Here numbers would be applied to non-numerical variables to each category that is mutually exclusive
- Frequencies
- Percentages
- Median and
- Mode.

As part of ethical requirement, the plan to obtain informed consents to enable the researcher to conduct the research among secondary school adolescents from the Ministry of Health Research Unit and Ministry of Education offices were included in the proposal. These were to be in written form. As for the participants they would be free to participate or not and therefore, a written consent would be obtained that would explain the importance of the study to them. All information obtained from the participants would be confidential. The researcher would explain to the participants that no names of individuals or school would be quoted or written alongside the responses, and on the questionnaires. Emphasis would be made that no cell phone numbers or initials would be written on the questionnaires. Participants would be asked to fill in the questionnaires during their free time, for example during break or lunch time to avoid disruption of school programs.

3.3.1 Sampling

According to Bailey (1991:83) a sample is the smallest subset of the population that has been selected to participate in the project or the study. The overriding consideration in assessing a sample in a quantitative study is its representativeness (Polit & Hungler 1999:279). A representative sample then, is the one whose key characteristics closely approximate those of the total population (*ibid*: 279).

Sampling can either be in form of probability or non probability. In probability sampling each element in the study population has equal chance of being included in the sample where as in non probability sampling the probability is unknown (Brink & Wood 2001:134). In probability sampling, the hallmark is the random selection of elements from the population (Polit & Hungler 1999: 284).

In this study, cluster and convenience sampling methods were used. Cluster sampling is the technique where the entire population is divided into groups, or clusters and a random sample of these clusters are selected (LoBiondo-Wood & Haber 1994:299).

The schools were identified in form of clusters by taking each school as a cluster. However, the researcher did not randomise the schools (clusters) but rather conveniently sampled respondents from the various adolescent populations of each school (cluster) in order to come up with a representative sample. This was

done due to the sensitivity of the subject and that not everyone that would have been randomly selected would have consented to participate.

In convenience sampling the subjects are convenient and accessible to the researcher. The advantage of a convenience sample is that it is easier for the researcher to obtain subjects. However the major disadvantage is that the risk of bias is greater because samples tend to be self selecting, and that representativeness is questionable (LoBiondo-Wood & Haber 1994:291).

According to Brink and Wood (2001:141) it is stated that there is no way of estimating the potential bias in this kind of a sample but it is possible to plan for objectivity so that elements are not deliberately selected by the researcher. The researcher minimised this risk by not participating in the selection of the subjects. It was left to possible respondents to volunteer their participation after the study and the purpose of the study was explained to them.

Another aspect that the researcher emphasised was that participation should only be based on self interest and not being coerced by friends as part of peer pressure.

3.3.1.1 Population

The population in a study is the entire set of individuals or elements who meet the sampling criteria (Burns & Grove 2001: 366).

In this study the population included male and female secondary school going adolescents in Mochudi aged between 16 and 19. According to the Botswana AIDS Impact Survey 11 Statistical Report of 2005, the age group at which the majority of adolescents have their first sexual encounter is 15 to 19 years (Botswana AIDS Impact Survey 11 Statistical Report 2005:29). However, in this study the population excluded those aged 15 years. As stated in the same report, this was done because below the age of 16 years the adolescents would require parental consent in order for them to participate in the study (Moremi, 2007. Personal interview, 13 June 2007. Gaborone).

The involvement of parents in the study would not have allowed for free expression by adolescents and the likelihood of biases would have been increased and hence the omission of this age group from the study.

3.3.1.2 The Process of sampling

Sampling involves selecting a group of people, events behaviours or other elements with which to conduct the study (Burns & Groove 2001:365). This has a major impact on the meaning and generalisation of the findings (*Ibid*: 365).

The schools were identified in form of clusters by taking each school as a cluster. Cluster sampling is the technique where the entire population is divided into groups, or clusters and a random sample of these clusters are selected (LoBiondo-wood & Haber 1994:299). However, the researcher did not randomise the schools (clusters) but rather conveniently sampled the adolescent

populations from each secondary school (cluster) in order to come up with a representative sample.

Those classes that had adolescents aged 16 to 19 years of age were identified in each of the schools. This was done with the assistance of the school teachers. The researcher explained the purpose of the study to all the adolescents that met the inclusion criteria at the time appointed by the school management.

Inclusion criteria were the following:

- any gender
- minimum age of 16 years
- maximum age of 19 years
- attendance of one of the identified secondary schools in Mochudi and
- equal representation of participants from all the secondary schools in Mochudi.

The total number of adolescents that met the criteria of age range 16- 19 years was identified from each school. A sample size of 12 percent from the total number in each school was selected. Participation in the study was on a voluntary basis.

In order for each person in the target population to have an opportunity to be selected as part of the sample, each person in the population must be identified.

To accomplish this, listing of every member must be done in the form of a sampling frame from which random selection of respondents is done (Burns & Grove 2001:369).

The researcher nonetheless, could not randomly select the adolescents due to the sensitivity of the study, and because of the possibility that not everyone who would have been randomly selected, would eventually have consented to participate voluntarily. Therefore, a convenience sampling approach based upon voluntary participation was adopted.

A sample size of 417 participants out of the total population of 3520 secondary school adolescents aged 16-19year was used. Each secondary school contributed 12 percents of total adolescent population aged between 16 and 19 years of age. This was so because the larger the size of the sample the more representative of the population it is likely to be (Geri LoBiondo-wood and Judith Laber: 306).

3.3.1.3 Ethical Issues Related to Sampling

According to Callahan (1998:5), there are three main ethical principles that are traditionally of concern in dealing with human subjects. A brief discussion of these three principles will follow.

The first ethical principle is **autonomy**, which refers to the obligation on the part of the investigator to respect each participant as a person capable of making a decision regarding participation in the study. The researcher must make sure that all the participants received full disclosure of the nature of the study, the risks, benefits and alternatives involved in the research. This must be done prior to any sampling taking place.

During sampling, explanation of the nature of the study was made to all the legible adolescents who met the inclusion criteria. This was done before any of them were requested to volunteer to participate in the study. It was also made clear to all the prospective respondents that participation was entirely dependent on their decision.

The benefits of the study were also made known to them. They were informed how the information would assist in the planning of sexual and reproductive health services for adolescents in the village secondary schools. This explanation was emphasised being cognisant of the fact that people would be more inclined to participate in a particular research investigation when they perceive that there are some benefit(s), either directly, indirectly, personal or to their society in general (Polit & Hungler 1999:137)

The second ethical principal is **beneficence** which refers to the obligation on the part of the investigator to attempt to maximise benefits for the individual

participant(s) and/or society while minimising any possible risk or harm to the individual(s) or society. The risk / benefit ratio were spelt out to the school management and the students. The importance of the study to the education and development of adolescent boys and girls, including the future of the Botswana Nation as a whole, was also clearly emphasised.

The third ethical principle invoked in human subjects is **justice**. Justice demands equitable selection of participants and exclusion of participants that may be unfairly coerced into participating. An example of such a group would be institutionalised children.

No teacher(s) was allowed to be present during the process of selection of participants. This was done in order to prevent students from believing or feeling that if they refused to participate in the study, the teachers may 'punish' them. All female and male adolescents who met the inclusion criteria had the freedom to participate in the study. This was in line with the principle of voluntary participation that requires that people should not be coerced into participating in research (Trochim 2006:2).

3.3.1.4 The Sample used in this research

The researcher intended to obtain a representative sample of 12% of the adolescents from each school (cluster). The intended sample was 417 adolescents. However, the sample size used in the study was 362 instead of the intended 417 respondents. This was due to some adolescents who did not fill in the questionnaires. Others yielded poor information and were discarded.

3.3.2 Data Collection

Data collection is the process of selecting subjects and gathering data from these subjects (Burns & Grove 2001: 460). In this study all those processes that the researcher used to collect data, are fully explained below.

3.3.2.1 Data Collection Approach and Method

The researcher used a self administered questionnaire in order to collect data from the respondents. This is a printed self report form designed to elicit information that can be obtained through written responses of the subject (Burns & Grove 2001:426). The approach was preferred among other means of data collection methods because it required less time and energy to administer. It also offered the possibility of anonymity of respondents and the possibility of interviewer bias would be decreased because of the absence of the interviewer during the gathering of data, and in this case, the completion of the questionnaires (Polit & Hungler 1999:349). This process accorded the researcher the convenience of distributing and collecting questionnaires from a group of respondents at each school. It also provided the researcher the opportunity of clarifying any possible misunderstandings concerning the questionnaire.

3.3.2.2 Development and Testing of the Data Collection Instrument

A questionnaire was developed in order to elicit the required information on the utilisation of the sexual and reproductive health services by adolescents from Mochudi. When designing the data collection tool the following aspects were considered:

- clarity of the questions
- the ability of the respondent to give accurate information;
- avoidance of wording bias
- due consideration of soliciting sensitive information
- the length of the questionnaire and
- the amount of time it would take respondents to complete the questionnaire

The questionnaire was prepared in a structured form. This was purposefully done because the more structured the questions are, the easier it would be to analyse the data (Bell 1999:119).

A questionnaire of thirteen (13) questions was developed. In order to ensure clarity of questions and consistence in methods of questioning and data collection procedure, a pilot test of the questionnaire was conducted. A pilot study is the preliminary trial of the study that is performed before the final study. It is done, amongst other reasons, to reveal fundamental problems in the logic that leads to hypothesis in which case revision may be required (Bailey 1991:183).

The pilot study was conducted at one of the secondary schools in Gaborone city where a similar setting of adolescent reproductive health services are situated.

This pilot study was a much smaller version of the proposed full study. Its main purpose was to refine the questionnaire (Burns & Grove 2001:49).

The researcher used 10 participants for this pilot study. The pilot study was followed by minor editorial corrections to the questionnaire. This questionnaire was later used to collect data for the main study in Mochudi.

3.3.2.3 The Data Collection Process

During the data collection process, the investigator performed four tasks which were interrelated and which occurred concurrently and not in a particular sequence. This consisted of:

- subject selection
 - collection of data (in a consistent manner)
 - maintaining total control over the research process (as indicated in the research design) and
 - solving the problems that could threaten to disrupt the study
- (Burns & Grove 2001:461).

Appointments were made with each school management and a specific time was scheduled for each school. The purpose of the study was explained to all respondents. It was again emphasised that participation was voluntary and that respondents would be expected to complete the questionnaires in their classrooms (or school hall) during free time.

Both male and female respondents were requested to participate. Students that met the inclusion criteria and volunteered to participate in the study gathered in the school hall or a classroom. A number equivalent to 12 percent of the population of the adolescents aged 16 -19 of each school were included in the study.

The researcher personally presented the questionnaires to the respondents. This was done in view of the findings reported by Polit & Hungler (1999:348) that personal contact with the respondents by the researcher had been found to have a positive effect on the rate of completed questionnaires that were eventually returned.

Each respondent was handed a questionnaire and were requested to freely express their views in writing without any interference from anyone. Seating arrangements were of such a nature that closeness between respondents was excluded. This was done to avoid one individual from being influenced by another.

3.3.2.4 Ethical Considerations Related to Data Collection

Researchers are expected to behave ethically in all areas of conducting research. It is, therefore, the responsibility of each individual investigator to be aware of the rules of conduct when doing research (Bailey 1997:182). According to Trochim (2006:3) there are key phrases that describe the system of ethical

protection created by the medical research establishment to try to protect the rights of research participants. These principles include:

- the right to voluntary participation
- informed consent
- exclusion from the risk of harm
- confidentiality and
- anonymity

A request for permission to conduct the research (see Annexure No. 1) was sent to the Health Research Unit, Botswana, and the Chief Education Office, Botswana. The permission to collect data from the schools received back from the Health Research Unit and the Chief Education Office at the Ministry of Education were presented to the different school authorities before any questionnaires were distributed (See Annexure No. 2 & 3).

Each school scheduled a particular date and time for data collection. This was dependent upon the particular school's schedule so as to avoid disrupting teaching and the school routine.

As for the participants, an informed consent form was prepared and each participant needed to sign it before receiving a copy of the questionnaire. This

was done after explanation of the purpose and importance of the study was given to the respondents (Polit & Hungler 1999:140).

The consent signed by each respondent comprised the following:

- Voluntary participation: The participants were informed that their participation in the study was entirely voluntary
- Freedom to withdraw from the study at any time
- Absence of any penalties upon withdrawal from the research
- Anonymity: The participants' names would by no means be linked to any of the answers. They were also asked not to write their names, initials or mobile phone numbers on any of the questionnaires
- Confidentiality: To ensure confidentiality the participants were assured that no information would be made available to anyone who is not directly linked to the study

The purpose of the study, where the study would take place and who could participate were made clear to the participants. Upon establishing that they understood the essence of the study, consent forms were distributed to all that volunteered to participate in the study. Clarification on the whole research study was provided before the questionnaires were distributed for completion.

After completion of the consent forms, and before the questionnaires were handed out, consent forms were placed separately to avoid any direct linkage between a particular consent form and its corresponding completed questionnaire.

A word of appreciation, in form of an expression of thanks from the researcher, was made to participants and the school management of each participating school.

3.3.3 Analysis of Data

Data was analysed using a copy of Excel software. The software was selected for this research because of easy accessibility by the researcher to a copy of the software and the ease with which data from small sample groups could be manipulated.

The assistance of a statistician was elicited during this process.

Data would be presented in descriptive form by organising and presenting it by means of frequency tables, various graphs, and pie charts. Data would also be presented in the form of:

- percentages
- totals
- range or

- mode (whichever would be convenient)

Inferences from the sample in form of inferential statistics to the population will be made in order to make speculations. However, it is not intended to make any generalizations. Data would be looked at from the perspective of the following scale of measurement:

- Nominal: numbers would be applied to non-numerical variables to each category that is mutually exclusive
- Frequencies
- Percentages
- Median and
- Mode

3.4 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

According to Bell (1999:104) the concept of validity tells one whether an item measures or describes what it is suppose to or states that it measures or describes. Validity can be either internal or external.

3.4.1 Internal Validity

Internal validity is the extent to which the results of the study can actually be attributed to the action of the independent variable and not something else (Brink & Wood 2001: 104). However, although internal validity should be a concern in

all studies, it is addressed more commonly in studies examining causality (Burns & Grove 2001:228).

In this study no causality was determined except to establish the factors that promote or hinder utilisation of sexual and reproductive health services among adolescents in Mochudi.

To enhance internal validity for this study the data collection tool was pre-tested in the form of a pilot study in a separate and different setting with similar structures as that of Mochudi in order to ensure clarity of questions and consistence in methods of questioning.

Corrections were made and the corrected instrument was used on the target population in Mochudi.

3.4.2 External Validity

External validity refers to the ability to generalise the research findings to other settings or samples (Polit & Hungler 1999:231). The findings from a study can only be generalised to the population of subjects from which the study sample has been selected at random (*ibid*: 231). Generalisation based on this fact, has not been made in this study considering that convenience sampling was used.

Convenience sampling is considered a poor approach to sampling because it provides little opportunity to control biases, and that the researcher needs to

identify biases, take steps to correct and describe them in order to improve representativeness of the sample (Burns & Grove 2001:374)

The researcher ensured that the following eligibility criteria were followed:

- any gender
- minimum age of 16 years
- maximum age of 19 years
- attendance of one of the identified secondary schools in Mochudi and
- equal representation of participants from all the secondary schools in Mochudi

Based on the above, it can be said that the findings would be applicable only to adolescents from the secondary schools in Mochudi.

3.5 SUMMARY

This chapter described the research design and research methodology that the researcher undertook in order to answer the questions in this study in detail. Emphasis was placed on the research design being descriptive and explorative in nature.

The study was also described as being quantitative in nature. Steps and procedures of data collection were also clearly described. Data collection methods used in this study were looked at by explaining the data collection

approach, development and testing of the data collection tool, process and ethical considerations in data collection.

Finally the chapter looked at how the data would be analysed and the important aspects of internal and external validity applicable to the study was attended to.

The data obtained from the data gathered for this study will be presented in Chapter 4.

CHAPTER 4

Analysis, Presentation And Discussion Of Research findings

4.1 INTRODUCTION

This chapter presents the results of the analysis of data obtained among the sampled adolescents. It is based on the responses that were obtained from the 362 participants that completed the questionnaires (see Table 1). The respondents involved adolescents from eight secondary schools namely:

- Bakgatle Community Junior Secondary School
- Borwa, Community Junior Secondary School
- Ithuteng, Community Junior Secondary School
- Kgamanyane Community Junior Secondary School
- Linchwe II Community Junior Secondary School
- Radikolo Community Junior Secondary School
- Sedibelo Community Junior Secondary School and
- Molefi Senior Secondary School

Although the study intended to obtain a representative sample of 12% from each school (Cluster), the adolescents who participated in the research were 362 instead of the intended 417, yielding a response rate of 86.8%. The shortfall in the number of responses obtained resulted due to the following reasons:

- Fifty- two (52) adolescents did not fill in the questionnaires
- Responses from three (3) respondents yielded poor information and were discarded.

The responses that yielded poor information from the three (3) filled in questionnaires were not appropriately answered. Two of the respondents wrote information irrelevant to the subject under study, while the other was illegible.

This reduction in the number in the responses from the intended sample size of 417 has impacted on the data findings in terms of adequate views of the respondents from all the schools who should have participated and therefore the data findings presented may not be exhaustive of all the adolescent views.

According to Polit & Hungler (1999: 348) the risk of serious bias may be negligible if the response rate is greater than 60% as it is sufficient for most purposes. The response rate of respondents for this study was 86.8% and can therefore be regarded as ideal for both analysis and also to ensure data reliability.

This chapter describes the demographic characteristics of the adolescents and the results of the responses from the filled in questionnaires. The results are presented thematically focusing on the key research questions. They are summarised in tables and figures.

In some tables, the “n” does not total to 362. These are cases where there was no response from one or more of the respondents, or where only valid responses of multiple responses are shown. In such cases, the number of adolescents who responded to such a particular question is clearly indicated.

4.2 MANAGEMENT AND ANALYSIS OF DATA

All the responses from the analysed questionnaires obtained from the adolescents were thoroughly checked for completeness. No attempt was made to summarise, paraphrase or correct bad grammar.

Data analysis began with studying and coding of the responses from the questionnaires. This enabled conceptualisation and categorisation of key themes emanating from the data. A codebook was developed based on the emerging categories. A summary sheet for each school was developed. All the variables in the questionnaire were entered in the summary sheets. The sheets contained the demographic variables of sex, age and form the adolescent is enrolled for. The other variables that were included in the summary sheets in accordance with the questionnaire were;

- 1 Awareness of sexual and reproductive health facilities
- 2 Utilisation of sexual and reproductive health facilities
- 3 Availability of sexual and reproductive health facilities
- 4 Type of sexual and reproductive health services made use of by adolescents
- 5 Difficulties experienced by the adolescents in reaching the facilities for sexual and reproductive health services and
- 6 Satisfaction with the type of sexual and reproductive health services received.

The sheets were then used to systematically categorise and code the responses of adolescents' data by tallying each response in accordance with category of the variable. The tallied responses were summarized numerically. A statistician was involved during the process of categorizing and coding of data. The codes were applied to transform the responses (data) into numerical quantitative form. This process is called quantitative coding of qualitative data.

The categorised and coded data was then entered in the EXCEL program. EXCEL data was used to generate frequencies and percentages, and where necessary cross-tabulations.

Frequencies, percentages and cross-tabulation have been presented in descriptive form such as tables and graphs. The use of EXCEL was considered appropriate despite the fact that the sample size (n=362) was large, and because data was obtained using a standard questionnaire.

4.3 RESEARCH RESULTS

Presentation of data is in accordance with the demographic characteristics of the participants and the objectives of the study. The following sections have been used to present the findings;

- Demographic data
- Awareness of sexual and reproductive health services
- Factors that affect utilisation of the services in Mochudi

- Possible factors that would promote utilisation of the services.

4.3.1 Demographic Data

Data on the demographic characteristics of the adolescents were obtained from the responses in the questionnaire. The adolescents were sampled from eight secondary schools and from various classes. Respondents came from the following classes:

- Form 1-3
- Form 4-5

Tables 4.1 below shows the distribution of the adolescents' sample by sex, school and class

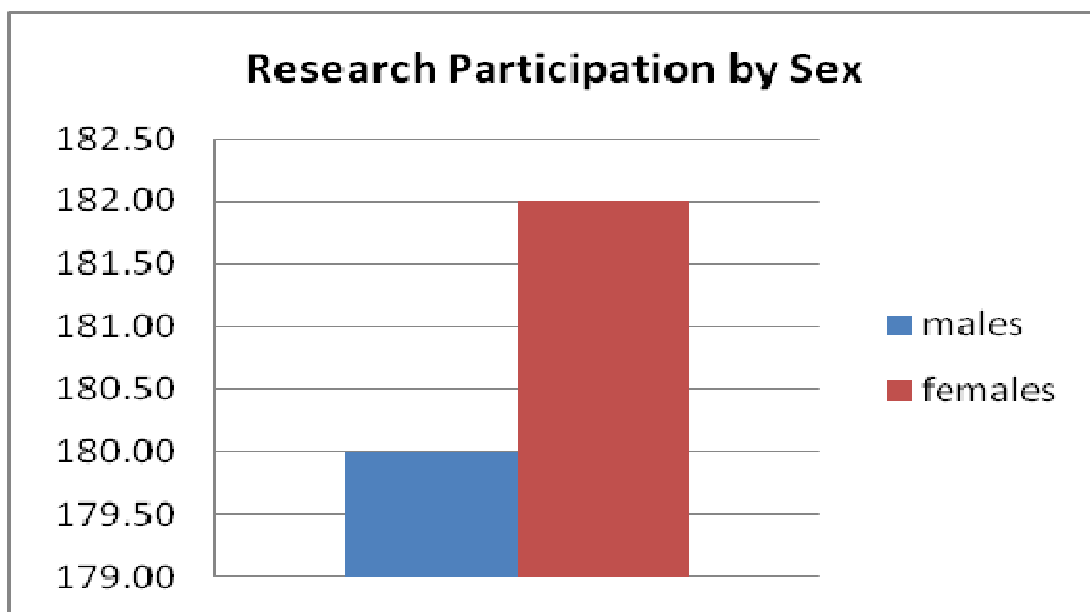
Table 4.1: Frequency of the Adolescents by Sex, School and Class

Sex:	Name of School	Form 1 - 3	Form 4 - 5	Total
Male	Bakgatle Community Junior Secondary School	18 (16,7%)		18 (10%)
	Borwa Community Junior Secondary School	21 (19,4%)		21 (11,7%)
	Ithuteng Community Junior Secondary School	21 (19,4%)		21 (11,7%)
	Kgamanyane Community Junior Secondary School	16 (14,8%)		16 (8,9%)
	Linchwe II Community Junior Secondary School	7 (15,7%)		17 (9,4%)
	Molefi Senior Secondary School		72 (46,8%)	72 (40%)
	Radikolo Community Junior Secondary School	6 (5,6%)		2 (1,1%)
	Sedibelo Community Junior Secondary School	9 (8,3%)		9 (5%)
	<u>Sub total</u>	<u>108</u>	<u>72</u>	<u>180</u>
Female	Bakgatle Community Junior Secondary School	22 (22%)		22 (12%)
	Borwa Community Junior Secondary School	15 (15%)		15 (8,2%)
	Ithuteng Community Junior Secondary School	18 (18%)		18 (9,9%)
	Kgamanyane Community Junior Secondary School	10 (10%)		10 (5,5%)
	Linchwe II Community Junior Secondary School	11 (11%)		11 (6,0%)
	Molefi Senior Secondary School		82 (53,2%)	82 (45,1%)
	Radikolo Community Junior Secondary School	4 (4%)		4 (2,2%)
	Sedibelo Community Junior Secondary School	20 (20%)		20 (11,0%)
	<u>Sub total</u>	<u>100</u>	<u>82</u>	<u>182</u>
	TOTAL	208	154	362

4.3.1.1 Demographic Characteristics of the Adolescents:

Out of the 362 adolescent respondents that participated in the study, 180 were males and 182 females as shown in figure 4.1 below:

Figure 4.1: Graph showing the frequency of Research Participants by Sex



Tables 4.2 below shows the demographic characteristics in the study. All the respondents were aged 16-19 years (100%).

Overall, 60% of the respondents were from community junior secondary Schools (CJSS) while the remaining 40% were from Molefi Senior Secondary School (SSS).

Table 4.2: Demographic Characteristics of the Adolescents in the study

Characteristic	Variables	Frequency (n=362)	%
Sex	Male	180	49.7
	Female	182	50.3
Age in Years	16-19	362	100
School	Bakgatle CJSS	40	11.0
	Borwa CJSS	36	9.9
	Ithuteng CJSS	39	10.8
	Kgamanyane CJSS	26	7.2
	Linchwe II CJSS	28	7.9
	Molefi SSS	154	42.5
	Radikolo CJSS	10	2.8
	Sedibelo CJSS School	29	8.0
Class	Form 1-3	208	57.5
	Form 4-5	154	42.5

Key: CJSS = Community Junior Secondary School
SSS = Senior Secondary School

4.3.2 Awareness of Sexual and Reproductive Health Services

4.3.2.1 Respondents who confirmed Awareness of SRH facilities by School and Sex

Young people face greater reproductive health (RH) risks than adults, yet they are less willing and able to access reproductive services. Lack of awareness, inadequate information and significant barriers posed by the current state of most Sexual and reproductive health services (SRHS) are unwelcoming to most young people (Senderowitz , Hainsworth & Solter 2003:1).

A question to establish the awareness of the available sexual and reproductive health facilities in Mochudi was asked of all respondents. The aim was to establish how much the adolescents knew about the clinics that offer the reproductive health services. Table 4.3 below shows the awareness of respondents with reference to school and sex.

Table 4.3: Awareness of SRH facilities Shown by Respondents with Reference to School and Sex

Name of School	Male	Female	Average
Bakgatle CJSS	100	86.4	93.2
Borwa CJSS	71.4	66.7	69.1
Ithuteng CJSS	95.2	77.8	86.5
Kgamanyane CJSS	68.8	90.0	79.4
Linchwe II CJSS	76.5	81.8	79.2
Molefi SSS	77.8	86.6	82.2
Radikolo CJSS	83.3	100	91.7
Sedibelo CJSS	100	85.0	92.5
Total	81,7	84,1	82,9

Key: CJSS = Community Junior Secondary School
SSS = Senior Secondary School

Looking at the issue of general awareness about the availability of adolescent sexual and reproductive health services, which was assessed by asking the respondents whether they were aware of any clinics of other health services that provided adolescent sexual and reproductive health services in Mochudi, the study found some consistency among all the secondary schools except for Borwa Community Junior Secondary School.

The findings for all the secondary schools except for Borwa CJSS showed levels of awareness among the respondents although differences were noted between the sexes. These differences may be dependent upon individualized interest and exposure to information on the various sexual and reproductive health services available. The location of the school (Borwa CJSS), which is on the outskirts of the village, could probably have an effect on the low levels of awareness since most of the time in the week is spent at school and therefore some adolescent students may not have ample time to familiarize with service centres located in the village.

On average females across the schools scored higher than males regarding awareness of provision of adolescent sexual and reproductive health services. That is, 81.7% of male adolescents and 84.7% of the female adolescents were aware of some form of adolescent sexual and reproductive health services (Table 4.3). On overall awareness, Bakgatle Community Junior Secondary School scored the highest with an average of 93.2 per cent of the respondents

reporting some knowledge of adolescent sexual and reproductive health services in Mochudi, while Borwa Community Junior Secondary School scored the lowest with an average of 69.1 per cent.

Looking at variations of awareness between sexes, Kgamanyane Community Junior Secondary School registered the highest variations of awareness (21.2%), although in terms of awareness levels amongst females, Borwa Community Junior Secondary School scored lowest at 66.7 per cent.

The statistics reflect high levels of awareness among the adolescents. This could be attributed to a lot of effort that has been made in Botswana to disseminate information, education and communication material by the Ministry of Health through the Family Health Division Department (Sebone 2001: 3)

According to Sebone (2001), studies have revealed high rates of unwanted pregnancy among adolescents, HIV/Aids and other risk behaviours like early initiation of sexual intercourse. It is further stated in the same report that knowledge/awareness of sexual risks among adolescents has been found to be as high as 95%, but the scenario was found to be incongruent with the actual behaviour practices of the youth (*ibid*: 3).

This is confirmed by the findings in this study that despite the high levels of awareness among the secondary school adolescents, it is incongruent to their behavioural practices as reflected by the persistent drop outs from schools

due to unwanted pregnancies. Dominique (2005) also confirms this by stating that since independence in 1966, Botswana has experienced a dramatic expansion and improvement of educational facilities for provision of universal basic education that has resulted in a rapid increase in primary and secondary school enrollments. However, this impressive record of educational progress is hampered by high leakage rates after primary school and junior secondary school due to schoolgirl pregnancies (Dominique 2005: 91-110). A reflection on figure 1.3 from chapter one confirms this.

Awareness is essential for adolescents to be able to take action to protect their sexual health but is not in itself sufficient to cause behavioural change (Langille 2000: 18). Therefore, other factors may need to be looked into, in addition to the awareness that is prevalent among adolescents, if sufficient equilibrium between their awareness and behavioural practice is to be attained.

4.3.2.2 Availability of sexual and reproductive health service facilities

Another aim of this study was to generate data on whether there exists any sexual and reproductive health service facility for adolescents in Mochudi.

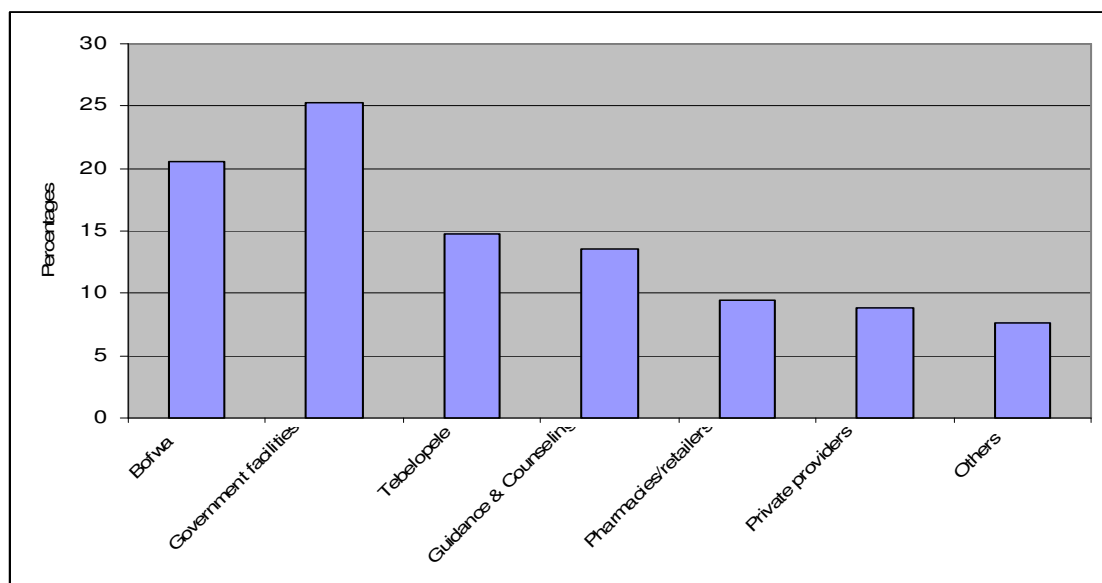
Adolescents were asked to:

- (a) Indicate whether they had knowledge of organisations that offered adolescent sexual and reproductive health services in Mochudi and

- (b) To describe the kinds of adolescent sexual and reproductive health services they had received.

Figure 4.2 (below) provides information regarding the number of adolescents from the various participating schools who were aware of the provision of adolescent sexual and reproductive health services in Mochudi.

Figure 4.2: Adolescents Awareness of Availability of Sexual and Reproductive Health Services in Mochudi



Over four-fifths of the adolescents who participated in this study (83.3%) indicated having knowledge of organisations that provided adolescent sexual and reproductive health services, whereas the remaining respondents (less than one-fifth - 16.7%) indicated having no knowledge of the availability of such services (Figure 4.2).

In a study on adolescents views of and preference for sexual and reproductive health in Burkina Faso, Ghana, Malawi and Uganda (2008) shows that a proportion of sexually active people did not know any source to obtain

contraceptive methods, ranging from 22% of sexually active females in Malawi and 49% in Ghana, and between 25% of sexually active males in Uganda and 41% in Burkina Faso (Biddlecom , Munthali , Singh & Woog 2008:5)

Of the adolescents in this study who indicated that they were aware of adolescents sexual and reproductive health services, 20.6% cited Bofwa (Botswana Family Welfare association), a non- governmental clinic as a provider of such services. A further 43.5 % cited health facilities like the Government, private hospitals, public and private clinics, pharmacies, and other retailers.

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About fifteen percent (15%) cited Tebelopele Testing Centre and about fourteen percent (14%) cited the School Guidance and Counselling Departments as providers of adolescent sexual and reproductive health services.

A further approximately 8% cited other providers. These included:

- Botswana National Youth Council (BNYC)
- Parents
- Friends
- Social workers and
- The Young Women's Christian Association (YWCA).

These findings are congruent with those stated in Research in Brief series No.3 (2005) report on Sexual and Reproductive Health among adolescents in Malawi.

The adolescents identified hospitals, friends, youth clubs, print media, teachers and some non- governmental organisations like Banja La Mtosogolo as sources for provision of reproductive health services and information (Research In Brief 2005 series No.3:2)

From these findings it is apparent that the participating adolescents are aware of where the services are provided, with a significant percentage (20.6%) indicating Bofwa Clinic as a provider. Others sources like Government Clinics and non-governmental institutions do reflect the availability of various sources for adolescent sexual and reproductive health services in Mochudi.

However, one would expect the School Guidance and Counselling Departments in the secondary schools to have been the main source of their knowledge, but the opposite would appear to be true as only 15% of respondents indicated the School Guidance and Counselling Departments in the secondary schools as sources of information regarding adolescent sexual and reproductive health services.

This shows that much needs to be done in the schools to create awareness/knowledge regarding the various sources and services related to adolescent sexual and reproductive health in the village if unwanted pregnancies and sexually transmitted infections are to be prevented in schools.

4.3.2.3 Type of sexual and reproductive health services made use of by adolescents' in Mochudi

A study of street youths in Accra aged 8- 19 showed that although 83% of the respondents knew about condoms, only 28% of the sample had ever used condoms. The report further states that despite the high levels of awareness by the adolescents of the modern methods of contraception, contraceptive use among them is generally low (Awusabo-Asare, Abane & Kyeremi 2004 :16)

In Malawi, a large proportion of adolescents can correctly identify ways to prevent HIV, for example among 15-19 years adolescents, 55% of women and 73% of men identified condom use as a method of HIV prevention. As regard knowing ones' status many adolescents who are aware of voluntary counselling and testing (VCT) have not gone for testing citing several reasons that VCT is not available, they trust their partners and fear of living a stressful life if results are positive (Research In Brief Series No. 3 2005:3)

Adolescents who were informants in this study mentioned a variety of services which they made use of at the various health facilities.

A higher proportion of the adolescents (50.1%) cited condom distribution and other forms of family planning (contraceptives) as the major services received by them. Please refer to Table 4.4 below in this regard.

Over twenty-seven percent (27%) of the adolescents mentioned voluntary counselling and HIV testing as services which they made use of. Another 9.8% of

the adolescents cited treatment of diseases like sexual transmitted infections (STIs) and 9% mentioned other services received such as antenatal and postnatal care. A few of the adolescents (3.9%) mentioned pre- and post-abortion counselling as services that are provided and made use of.

Table 4. 4: Frequency Table Showing Sexual and Reproductive Health Services Received by Interviewed Adolescents in Mochudi

Service	Percentage (%)
Condoms and family planning (contraceptives)	50.1
Voluntary counselling and HIV testing	27.4
Treatment of sexually transmitted infections (STI's)	9.8
Antenatal and postnatal care	9.0
Pre- and post-abortion counselling	3.9

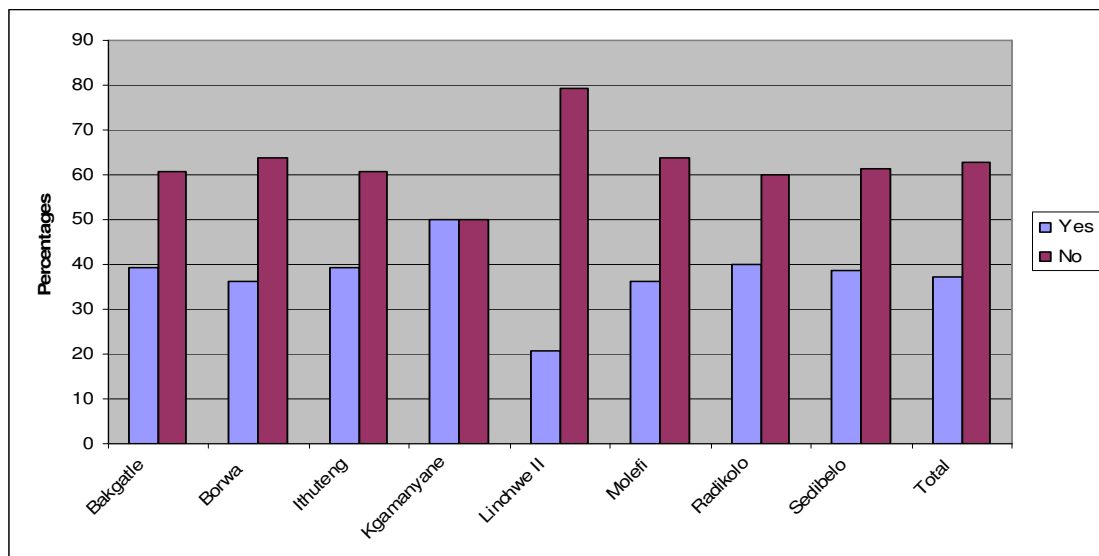
4.3.3 Factors that affect Utilisation of ASRH in Mochudi

4.3.3.1 Utilisation of adolescents' sexual and reproductive health facilities (ASRH)

The adolescents were asked whether they had used any sexual and reproductive health services. The aim was to assess whether adolescents' knowledge about available services resulted in their use of the services or not. This assessment emanated from the views in literature which state that adolescents are particularly vulnerable to sexual and reproductive health risks due to factors like young age, ignorance of matters related to sexuality and reproductive health, lack of factual knowledge about contraception and inability or unwillingness to use most family planning and health services (Mago et al 2005:8)

The figure below shows how many have visited the clinics to use the services according to the schools.

Figure 4. 3: Visits to Any Clinic to Use Sexual and Reproductive Health Services



Levels of awareness/knowledge and use of sexual and reproductive health services can be used to evaluate the acceptability and success of sexual and reproductive health services. Knowledge is an essential (though not in itself sufficient) component for adolescents to be able to take action to protect their sexual health and the educational system plays a major role in creating that knowledge (Langille 2000:18).

Various studies conducted in Ghana show that the awareness of young people about contraceptives and where to obtain them is high. In spite of the high levels

of awareness among adolescents of modern methods of contraception, contraception use among them is generally low (Awusabo-Asare et al 2004: 15-16)

This information about awareness/knowledge and use of sexual and reproductive health services is not only of importance, but of practical use to policy and service staff. According to Dingake (2001:13) the national youth policy in Botswana recognizes the health promotion among young people but does not address adolescent sexual reproductive health issues in any detail.

As regards the national school health policy it does not make provisions on adolescent sexual and reproductive health issues and does not even give guidance to teachers on how to implement among other things, access to services like family planning. The policy simply says that school going children of Botswana are entitled to school health services (*Ibid*: 13).

Therefore, findings from the study would assist the policy makers to revisit the National School Health Policy in order to assist in curbing the current high incidence of unwanted pregnancies and its implications, including sexually transmitted infections, among school going adolescents. Furthermore, this information can also be used as a guide towards the improvement and expansion of awareness/knowledge and use of adolescent sexual and reproductive health services in Botswana.

One-hundred and twenty-seven (37.1%) out of the 342 of the adolescents reported having used the adolescent sexual and reproductive health services. The highest number of students who reported using the sexual and reproductive health services were from Kgamanyane Community Junior Secondary School (50%), followed by Radikolo Community Junior Secondary School (40%) and Bakgatle Community Junior Secondary School, and Ithuteng Community Junior Secondary School who both scored at 39%.

Figure 4.3 shows the distribution of visits by adolescents to any clinic to receive sexual and reproductive health services. Linchwe II CJSS recorded the lowest percentages of visits (21%).

The picture from the findings shows that adolescents are sexually active and can access the services if an enabling environment is provided for them. This therefore, calls for the provision of the social structures including policies that would appropriately encourage and promote utilisation of the services among secondary school adolescents, if unwanted pregnancies and sexually transmitted infections are to be avoided. For example in Chile, the American Medical Association states that although school officials were concerned about adolescent pregnancies, they were resistant to being seen to be promoting contraception and worried that such promotion might increase sexual activities, particularly among young women (Gizzard et al 2003:208).

4.3.3.2 Difficulties Experienced by Adolescents in Reaching the Clinics for

Sexual and Reproductive Health Services

The respondents/informants were also asked to indicate whether they experienced any problems or difficulties regarding accessibility of services at the clinics and to explain the kind of difficulties they experienced. The views of the respondents are provided in Table 5 below.

Table 4. 5: Frequency Table Showing Main Difficulties Experienced by Respondents in Reaching Available Clinics (n=133)

Difficulties That Were Experienced	Percentage (%) Who Reported This
Felt shy and uncomfortable	39.7
Clinic too far	22.9
Still under-age	12.2
Inadequate resources	9.2
Unfriendly staff	8.4
Long waiting time	2.3
Others	5.3

In this study, participating adolescents were asked if there had ever been a time when they wanted to get sexual and reproductive health services, but encountered some difficulties. This question was used to determine whether any of the respondents had experienced any problem(s) that may keep young people from visiting clinics that provide adolescent sexual and reproductive health services.

About thirty-eight percent of the adolescents that responded to the questionnaire mentioned that they had not gone for services when they wanted to, with the majority of them having interest in obtaining information or services on family planning and voluntary counselling and HIV testing.

The majority (39.7%) of the adolescents did not reach the clinic for sexual and reproductive health services because they felt shy and were uncomfortable (refer to Table 4.5 above).

The second most important reason for having difficulties in reaching out for sexual and reproductive health services was because the clinic was too far.

Over twelve percent (12%) felt that the staff referred to them as still being under age and that it would be better if they rather focused on their studies than sexual matters.

Staff being unfriendly was also a significant reason for not seeking services as reported by some respondents (8.4%), as well as having inadequate resources (9.2%).

The resources mentioned as being inadequate by the respondents included:

- Injectable contraceptives and condoms which were not available at all times

- No personnel to attend to the adolescents when they visited the clinics and
- A few respondents also mentioned that staffs at a few clinics were friendly.

The findings in this study do tally with the Cote d'Ivoire study of 1999 which was conducted in two rural and two urban health districts which surfaced the obstacles like poor quality of care for adolescents at health centres, persistent absenteeism of staff, long waiting periods, high cost of consultation and care, unfriendly treatment by staff and lack of privacy in the facilities (Jegeebhoy etal 1999:92-93)

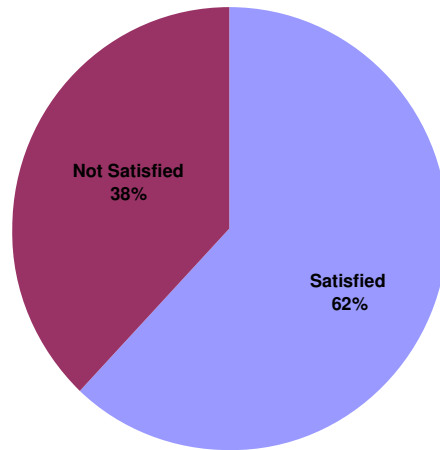
Adolescents therefore, faced barriers in obtaining adolescent sexual and reproductive health services that extended beyond the clinic walls. The feeling that clinics are too far is also related to the time spent in accessing services, which is also reflected in their desire for shorter waiting times while at the clinic.

4.3.4: Possible Factors that Would Promote Utilisation of ASRH Services

4.3.4.1 Satisfaction with the Sexual and Reproductive Health Services Received

The adolescents were asked to state whether they were happy or not with the services they had received at the various clinics and to indicate what they liked about the services they received. This was to establish their level of satisfaction with the services

Figure 4.4: Pie Chart showing satisfaction with services received.



Out of the 298 adolescents who responded to this question, 186 indicated that they were happy with the services they had received. About 45% reported that they were happy with services because they were treated well.

Thirty-five percent (35%) of the participating adolescents stated that they were satisfied with the services, but did not give any explanation. Over twelve percent (12%) of the adolescents cited another reason, namely: as being equipped with sexual and reproductive health knowledge.

The knowledge referred to had been acquired through health education on sexually transmitted infections and the use of contraceptives to prevent unwanted pregnancies at the time they visited the clinics. Seven percent (7%) of the female adolescents indicated that they were happy because they were empowered to prevent themselves from falling pregnant and being infected by

sexually transmitted infections (STIs) which they now appreciate could result from unprotected sexual intercourse.

About 40% of the adolescents who responded to the question in which they were asked to indicate what they liked about the services, expressed dissatisfaction with the services.

They cited the following reasons:

- Not being treated well (33%)
- Health workers who were disrespectful (10.7%)
- Long waiting times at the clinic (8.9%)
- Poor service delivery (5.4%)
- Inadequate resources at the clinic (4.5%) and
- Various other reasons (11.6%)

Similar findings surfaced in a study conducted in 1999 in Cote d`Voire in two rural and two urban health clinics where obstacles like long waiting periods, unfriendly staff, and lack of privacy surfaced as the attributes to underutilisation of sexual and reproductive health services by adolescents (Jegeebhoy *et al* 1999:92).

In another study in Swaziland, services for adolescents were seen to be unfriendly. This focused mostly on the “unfavourable” attitudes of health care

providers and also the young people are told that they are under age for these services (Southern Africa Multi-country Case Study [Sa]: 33).

4.4 SUMMARY

The findings from the statistical analysis of this data are that adolescents are knowledgeable or aware of the availability of adolescent sexual and reproductive health services offered in Mochudi Village. They are also aware of the actual services/facilities that offer by these services. Despite the awareness, however, not many of the adolescents access the services for various reasons like distance, embarrassment, negative provider attitude, time involved in service delivery as well as other factors.

The outcomes of the study seems to confirm that adolescents do indulge in pre-marital sex but fail to utilise the available services adequately due to many hindrances which they encounter.

In Chapter 5 conclusions will be drawn from this study. Attention will also be given to describing the limitations of the study and to provide some recommendations that should enhance service delivery of adolescent sexual and reproductive health services in Botswana towards better health for all.

CHAPTER 5

Conclusions, Limitations and Recommendations

5.1. INTRODUCTION

The study examined responses by secondary school adolescents in Mochudi Village of the Kgatleng District, Botswana, to a questionnaire about the utilisation of the available adolescent friendly reproductive health services in Botswana. The main focus of the research was to determine the utilisation of available adolescent sexual and reproductive health services by adolescents aged 16-19 years. This was done mainly in view of the number of unwanted pregnancies which occurs among the secondary school adolescents. The objectives were to;

- Determine the level of awareness among adolescents of the existing Adolescents Sexual and reproductive health service available in Mochudi
- Identify those factors that affect utilisation of sexual and reproductive health facilities in Mochudi
- Identify possible factors that would promote adequate utilisation of sexual and reproductive health services by adolescents in Mochudi; and
- Make recommendations to service providers and policy makers on how to promote utilisation of the service by adolescents.

5.2 RESEARCH DESIGN AND METHOD

The study was conducted in the form of a survey that was both descriptive and explorative. The survey was conducted in order to obtain information among the

secondary school adolescents using a self administered questionnaire. Both descriptive and explorative approaches were used to undertake the study in the natural settings in the schools so as to gain insight, understanding and meaning (Brink & Wood 1998:283). The data was analysed, described, organised and summarised in the form of frequencies, percentages and measures of central tendency. The study was non-experimental and quantitative in nature with the main goal to establish the utilisation of reproductive health services among adolescents. This is an area that has not been extensively explored in this setting in order to determine factors that either promote or prevent adequate utilisation of these services. Numerical data was also utilised to obtain information about the phenomenon.

In this study, cluster and convenience sampling methods were used. The schools were identified and each school was regarded as a cluster. The researcher did not randomise the schools but rather conveniently sampled from each school (cluster) to come up with the representative sample. This was done due to the sensitivity of the subject, and to provide for sufficient respondents for the study. In the context of the study the adolescents that met the criteria for inclusion were all those of the age range 16 -19 years.

Each school contributed 12 percent of its total number of adolescents aged 16-19 to the eventual sample. Participation in the study was voluntary. A final sample size of 417 respondents was envisaged. However, 362 respondents actually

participated in the research yielding a response rate of 86.8 percent. The shortfall resulted from premature termination by some adolescents and some questionnaires yielded poor information and were discarded.

The findings from the study are reflected in accordance with the views expressed by the respondents and how these have impacted on their utilisation of the available adolescent reproductive health facilities in Mochudi Village.

5.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

The summary and the interpretation of the findings are presented according to the questions as they appear in the questionnaire.

5.3.1 Demographic Characteristics of the Adolescents

The World Health organization (WHO) defines adolescents as young people aged 10-19 years (Adolescents Friendly Health Services 2002:5). This phase of life is considered to be a journey from the world of the child to the world of the adult characterised by physical and emotional changes as the body matures and the mind becomes more questioning and independent (*Ibid*: 5).

Adolescents are neither children nor adults, but are individuals who need support from adults and other mentors. It is a period when they can put themselves at risk without thinking through the consequences of what they are actually doing. The changes that they undergo during this period happen at

different rates in different individuals with some associated anxieties among them.

Their bodies change and they experience new emotions as they begin to become adults which brings with it opportunities for growth as well as risks and, therefore, have the right to obtain factual information and to comprehend all phases of their development as well as their sexual rights (De Bruyn 1999: 1-5).

For the purposes of this study, however, adolescents represent the ages 16 -19 years that made up the sample of 362 participants. This is the age group at the senior level of their secondary school education and who are about to cross to the senior levels of education. All of the eight secondary schools were represented in the study. The representative schools are:

- Bakgatle Community Junior Secondary School
- Borwa, Community Junior Secondary School
- Ithuteng, Community Junior Secondary School
- Kgamanyane Community Junior Secondary School
- Linchwe II Community Junior Secondary School
- Radikolo Community Junior Secondary School
- Sedibelo Community Junior Secondary School and
- Molefi Senior Secondary School

In this sample of adolescents there were variations in terms of levels of education, ranging from Form three to Five. Both sexes were also represented. The majority of the participants were girls who made up 50.3% as compared to boys who were slightly lower in number (49.7%). All of the participants were aged between 16-19 years thereby making a 100% that met the criteria.

With the expansion and improvement in educational facilities in Botswana there was an increase in the recruitment of learners. This resulted in schools having to accommodate a lot of adolescents.

Adolescence can be a fraught with challenges of many sorts for young women and men, not the least of which is that of maintaining their sexual health which is defined by World Health Organization as "... the integration of somatic, emotional, intellectual and social aspects of sexual beings in ways that are positively enriching and enhance communication, personality and love." (Langille, 2000:1). While adolescents in this age group must deal with the academic responsibilities, they are also at the mercy of trying to address their sexual health issues that affect them during this period of their lives especially avoidance of pregnancies and sexually transmitted infections (STIs). For example, the report by Medicaid Managed Care states that in 1999 almost 50% of all high school students and 65% of high school senior students reported that they had engaged in sexual intercourse (Lafferty, Downey, Holan, Lind, Kassier, Tao & Irwin 2002:1179)

Young people are often able to develop the knowledge and skills required to protect these aspects of their sexual health and are frequently able to do so. Unfortunately many experience barriers to both accessing information and acting upon it, resulting in unwanted pregnancies and occurrence of incidents of sexually transmitted infections that occur at needless high rates. Therefore, this age range requires comprehensive primary care if adolescent problems related to sexuality would be prevented or controlled.

5.3.2 Respondents Who Confirmed Awareness of Sexual and Reproductive Health Services by School and Sex

With reference to knowledge or awareness of the presence of adolescent sexual and reproductive health services in Mochudi Village, the results indicate that most of the secondary school adolescents were aware of the existence of these services. This knowledge was consistent among all the schools in the village despite slight variations.

On average 84.7% females and 81.7% males were aware of the adolescent sexual and reproductive health services provided. This was encouraging for the service providers that were involved in providing information, education and communication (I.E.C) programmes. However, the awareness may not be congruent with the sexual behaviour of all of the adolescents in terms of seeking assistance from adolescent sexual and reproductive health services. This is confirmed by a study conducted by Sebone (2001) where the knowledge of

adolescents regarding HIV/AIDS showed high levels of knowledge but was found not to be congruent with the actual behaviour and practices of the adolescents.

From the various reports that have been alluded to previously have shown that awareness of the various sexual and reproductive health services by most adolescents is high such as for family planning, HIV/AIDS and other sexually transmitted infections. In spite of their complete awareness and the consequences thereof, utilisation of the services stand on the lag, posing a major gap between awareness and the actual behaviour desired for service use. The implication is that dissemination of information to make adolescents aware of the services available to protect them from sexual risk should continuously be carried out if greater influence is to be realised during this transitional period of adolescence into adulthood.

5.3.3 Knowledge by Students of Actual Facilities that Offer Sexual and Reproductive Health Services in Mochudi

The respondents were also asked to state whether they know the actual facilities that offer adolescent sexual and reproductive health services in the village. Most of the adolescents indicated having knowledge or awareness of the organisation(s) that offer these services. Among the adolescents that responded, about 83.3% indicated having knowledge of actual sources of these services. Not only were the adolescents aware of these services, but they were also aware of the organisations where they could access these services. It should be borne in mind that being aware of the services and the actual facilities that offer such

services does not necessarily mean that utilisation of services occur. Awareness can be one thing while actual utilisation is another.

Generally, awareness or knowledge by adolescents regarding the reproductive health services and the actual facilities that offer the services is high as shown in Table 4.3(of chapter four) with most schools recording high levels of knowledge regarding the facilities for reproductive health services in the village.

5.3.4 Utilisation of the Adolescent Sexual and Reproductive Health Facilities

As regards the utilisation of the services the respondents were asked to state whether they had visited any of these facilities to receive any service related to sexuality. Out of the 342 respondents that answered positively to the question, 127 (37, %) of the adolescents reported having visited the facilities to receive sexual and reproductive health services in the village.

The majority (62, 9%) indicated having not visited any of the facilities for any service. However, it should be noted that this may not necessarily mean that they do not indulge in premarital sex. Studies conducted in Kenya among high school students indicate that as many as 70% of unmarried male adolescents and nearly 25% of their female counterparts have pre-marital sexual experience (Kiragu & Zabin 1989: 108). In the same study it was also found that fewer than 12% of sexually active unmarried adolescent women reported using

contraceptive methods. As a result rates of unwanted pregnancies, abortions and sexually transmitted infections were found to be high (*Ibid*, 110).

From the picture of pregnancies among the students in Mochudi, some may genuinely not be indulging in premarital sex while others, for one reason or another, would not want to open up with issues pertaining to sexuality. This calls for concerted effort by all stakeholders concerned (e.g. health professionals, educators, counsellors, government representatives, churches, teachers, parents and others) with the promotion of health behaviour among the adolescents in order to assist those that are sexually active, to obtain these services and to encourage those that are abstaining to uphold their standards. Figure 4.2 of chapter four shows the visits to the clinics by adolescents to use sexual and reproductive health services.

5.3.5 Type of Sexual and Reproductive Health Services Mainly Utilised by Adolescents in Mochudi Village

The condom and other contraceptives surfaced as the major services received by the respondents that have used the services. The use of condoms was predominantly high among the services that the adolescents utilised. This could be attributed to the wide scale national condom promotion programmes in Botswana. The findings of this study support the results of a study on reproductive health behaviour among adolescents and young adults in the peri urban district in Uganda. The findings were that knowledge of condoms was

universally high in this population and was related to condom promotion in that area (Ndyanabangi *et al* 2003: 8)

A significant percentage of respondents (27.4%) had sought counselling and HIV testing while others were treated for sexually transmitted infections. This can be seen as an indication that sexual activities among some adolescents are a reality. It was gratifying to note that some adolescents actively sought these services and were keen on preventing unwanted pregnancies, sexually transmitted infections and to know their HIV status and including utilisation of other services like general information on reproductive health issues, as shown in table 4.4, of chapter four.

However, a bigger population still needs information and education regarding sexual and reproductive health. This has surfaced the need for all stakeholders in work settings, especially schools, to spearhead the reaching of the adolescents with information in order to promote the utilisation of these services.

5.3.6 Difficulties that Adolescents Experienced in Reaching the Clinics for Sexual and Reproductive Health

Accessing adolescent sexual and reproductive health services seem to pose a greater challenge for adolescents in modern times. The socioeconomic factors characterised by poverty and unemployment, low education levels, and costs incurred in transportation, coupled with poor communication between parents and children, as well as teachers have aggravated the problem.

Factors like urbanisation, internal and external conflicts, the changing roles for individuals within society and the breakdown of the traditional value systems have left adolescents being vulnerable to early sexual indulgency and ultimately sexually transmitted infections. It, therefore, remains a fact that adolescent girls become involved in sexual activities with sugar daddies and taxi drivers, and other economically viable men in exchange for small items their parents cannot afford to buy for them.

Lack of information, inadequate skills, and lack of access or inability to persist in the use of protective measures and the unpredictable sexual encounters characterised by non-lasting love affairs they engage in, underscores the fact that adolescents' sexual health is in jeopardy. Hence, creating a more friendly approach in trying to assist adolescents to seek reproductive health services in a manner that would promote their interests would impact greatly on saving the adolescent population from unwanted pregnancies and sexual transmitted infections inclusive of HIV/Aids.

In this study the respondents surfaced a number of deterrents in their endeavour to seek adolescent sexual and reproductive health services. One difficulty which they experienced was that they felt shy and uncomfortable to visit the facilities for adolescent sexual and reproductive health services. This problem of shyness and feeling uncomfortable was also found in other studies conducted in Zimbabwe and Kenya where it was revealed that adolescents are neither well

received nor comfortable in the mainstream family planning (MCH/FP) facilities (Erulkar *et al* 2005: 53).

Fear of disclosure of their sexuality keeps them away from seeking services. This is also supported by the study conducted in China among abortion seekers which revealed that adolescents feel shy to confide in parents and health workers (Jejeebhoy *et al* 1999:92).

Those factors elicited from the research can be summarised as follows:

- Shyness in utilising adolescent sexual and reproductive health services
- Shyness in utilising sexual and reproductive health services run by older health professionals
- Clinics were not easily accessible because of distance
- Lack of privacy
- Unfriendly staff and
- Long period of waiting

Similar findings surfaced in a study conducted in 1999 in Cote d'Ivoire in two rural and two urban health clinics where obstacles like long waiting periods, unfriendly staff, and lack of privacy surfaced as the attributes to underutilisation of sexual and reproductive health services by adolescents (Jejeebhoy *et al* 1999:92).

In another study in Swaziland services for adolescents were seen to be unfriendly mainly because of unfavourable attitudes of health care providers and also the young people were told that they were under age for these services (Southern Africa multi-country Case Study [Sa]: 33).

This supports the findings of this study in that the providers of these services often tell the adolescents that they are too young to receive the sexual and reproductive health services that are available as demonstrated in Table five of chapter four.

Obstacles such as these and many other raise questions about the appropriateness of current service approaches to adolescents' sexuality as regards their access to services.

It can be speculated that adolescents shun these services due to negative attitudes of providers regarding young unmarried adolescents who are sexually active. Additional to provider negativity, is the fear that services are not confidential, fear of meeting their parents or other adults they know at the facility. These issues were clearly reflected in the discomforts and shyness expressed by adolescents as some of the factors that have discouraged them to utilise service centres or to disclose their sexual problems.

The reluctance of promoting adolescents access to services is shown by the limited number of African countries that have developed reproductive health services for adolescents. Some studies have raised the issue of relevance and appropriateness of a service delivery centred approach which recommends the improvement of access of family planning services for adolescents. For some the creation of school based health clinics in Africa are perceived as premature and the policy which may generate opposition from parents, political and religious leaders (Nare, Katz & Tolley 1997:8).

Given the persistence of obstacles such as these experienced by adolescents as far as access to sexual and reproductive health services are concerned, would still make it difficult to obtain the services from providers unless a change in perceptions regarding the sexual needs of adolescents are given priority.

A number of studies have speculated that adolescent reproductive health needs would be better served in environments specifically for them such as youth-only clinics or health centres that are youth friendly (Erulkar, Onoka, & Phiri 2005:52). A qualitative study in Zimbabwe found that youth preferred youth-alone youth facilities while in another study in Uganda adolescents preferred upgrading of existing services and facilities and retraining of personnel. In West Africa adolescents suggested that they would prefer not to meet older people at clinics because they often get unfriendly reception. In South Africa the findings reflected young peoples' strong preference for youth-only services and for providers that are friendly and non-judgmental (*Ibid*: 52).

In a study conducted in Uganda by Matatu, Njau & Yumkella (2001) found gaps in the skill and knowledge by providers of adolescent reproductive health at the centres and concluded that at district health centres, the vast majority of adolescent clients sought only antenatal or maternal services and attributed other reasons for not seeking other reproductive health services as follows:

- Little knowledge of available reproductive health services
- A perception of negative provider attitudes towards adolescent sexuality
- Inconvenient health care centre schedules
- Lack of anonymity and confidentiality in health care centres
- Fear of ostracism by peers and
- Embarrassment about disclosing sexually transmitted infections and fear for screening for HIV/Aids.

The findings from the study and the supporting evidence from the various studies conducted in other countries underscore the fact that there is a need for change in the approaches employed in service delivery in order to meet adolescent sexual needs if unwanted pregnancies, transmission of sexually transmitted infections, including HIV/Aids, and other hazardous practices like abortions are to be minimised.

School dropouts as a result of unmet adolescent sexual health needs would be a drawback if appropriate actions were not taken into consideration in the attainment of one of the national pillars of Vision 2016 of an educated, informed and healthy nation (Vision 2016, Towards Prosperity For All 1997:28)

5.3.7 Satisfaction with Adolescent Sexual and Reproductive Health Services that were utilised

Of the adolescents that had utilised the adolescent sexual and reproductive health services, and responded to the question that asked them how they rated the services they received from service providers, 45% of the adolescents indicated that they were happy with the services. The reasons they mentioned were that they were well treated when they visited the facilities. Others said that they acquired knowledge regarding sexual and reproductive health matters while the rest indicated that the services they got saved them from becoming pregnant and acquiring sexually transmitted infections.

Another significant percentage (40%) of the respondents, however, were not satisfied with the services. They questioned the quality of health services they received from the providers of the care. They cited health workers as being disrespectful to them, long waiting time before services were provided, and inadequate resources in the facilities as reasons for their dissatisfaction.

According to Fullerton (2004:16) in the report on promoting positive adolescent sexual health and preventing teenage pregnancy, a number of authors

suggested possible explanations for young peoples' poor use of available contraceptive services and other reproductive health services. He cites Peach *et al* (1994) who states that concerns about confidentiality, fear of disapproval and lack of access have an effect on effective utilisation. Diamond *et al* (1999) is also cited in the same report as reporting that young people, who are sexually active, are more likely to attend a service that is geographically convenient.

Most adolescents want privacy when they need reproductive health services. This is confirmed in the same report which indicates that young people do not want parents to know they are sexually active, and, therefore, may choose non local services or none at all if no other choice is available.

Another important hindrance found is the suitability of opening times. Africa Youth Alliance/Pathfinder, (2003) outlines that young people have limited windows of opportunity to seek advice because of unsuitable opening times of sexual health services. Services are often only available when young people are meant to be at school and often require getting on a bus to get to the various service centres.

From the study findings, and confirmed by other findings by other authors, for example Nare *et al* (1997:4) shows how critical the processes involved in service delivery are and it would either promote utilisation or deter adolescents from utilising the available sexual and reproductive health services. Factors such as

geographical location of service centres, confidentiality, and quality of services, respect, and correct opening hours, all have an effect on access and utilisation of the services.

5.4 CONCLUSIONS

A number of issues of concern to all stakeholders to the school going adolescents in Mochudi have emanated from this study. The understanding of such findings would assist in the application of appropriate interventions that would promote utilisation of services in the village.

5.4.1 Respondents who Confirmed Awareness of Sexual and Reproductive Health Services by School and Sex

From the findings of this research it is clear that most of the students in Mochudi Village know about the various adolescent reproductive health services that are offered in the different health facilities in the village. Not only do they know the actual services, but they also know the facilities that offer these services.

As far as adolescents are concerned, it should be noted that being aware of services and the actual facilities that provide these services is one thing, but the actual application of the knowledge in order to influence their behaviour, can be another complex issue. As much as the statistics show an impressive picture of awareness of the services, the very few that have lagged behind in the awareness of the sources of sexual and reproductive health services, would be the risk group if all the adolescents were not captured on the awareness journey.

Knowledge is essential (though not in itself sufficient) a component for adolescents to be able to take action to protect their sexual health, and the education system has a major role to play in creating that knowledge (Langille 2000:18).

Therefore, the challenge to all stakeholders (teachers, health educators like nurses & doctors, church leaders and other community groups, parents, and policy makers) still exist to ensure that sufficient information and knowledge of sexuality reaches vulnerable school going adolescents whose futures are at risk and to prevent school dropouts because these adolescents do not know where to obtain help.

5.4.2 Utilisation of Sexual and Reproductive Health Services by Adolescents

From the foregoing discussion it is evident that awareness of services does not spontaneously result in the actual usage of the available facilities and services. From the analysis of the findings most of the adolescents do not utilise the facilities despite the impressive picture of awareness that became evident. It should also be noted that not all the adolescents in schools are sexually active and, therefore, may not be prompted to visit the facilities to make use of their services. However, judging from the number of pregnancies emanating from schools, there is sufficient evidence to support the view that they (adolescents) indulge in sexual activities and, because of this there is a need for the

adolescents to utilise the facilities for sexual and reproductive health, if sexual risks are to be avoided among this age group.

Through sex education, the young people would get empowered to make right decisions regarding their sexuality. Sex education does not necessarily go against the cultural values, religious commitments and traditional norms of society. Rather, it perfectly supports to promote sexual abstention, responsible sexual and reproductive life and a reduction in sexual risk-taking (Taffa, Inge-Klepp, Austveg & Sundby 1999:3).

At this moment in time there is a need to remind ourselves that every family would like to avoid any risks to school children that would affect their dreams and of the future for the family and the nation as a whole. However, there are fears, biases, prejudices and knowledge factors in the families and other sectors which complicate these matters. Taffa, *et al.*, 1999 cites Friedman (1997) who states that adolescents tend to believe what their parents believe, but too often interventions tend to pull parents and the youth apart. Very often sex education is 'pushed' without involving the parents and parents then react in horror. Therefore, individuals who promote health need to pay attention to the values of society in order to complement the services if positive results are to be realised.

5.4.3 Types of Sexual and Reproductive Health Services Made Use of By Adolescents in Mochudi

Young people's sexual behaviour is more likely to make them vulnerable to multitudes of other health problems such as sexually transmitted infections (STIs) and HIV/Aids, unwanted pregnancies and abortions. These effects have a negative impact on their health and education.

A lot of adolescents indulge in premarital sex and mostly use sex as a means of pleasure and economic survival. Lack of access to information, inadequate life skills, lack of access or inability to persist in the use of protective measures and the mere fact that they have unpredictable sexual encounters, based on non-lasting love affairs, make the adolescents vulnerable to the many negative consequences.

Taffa, *et al.*, 1999 cites the WHO, & UNAIDS (1998) that around the world, half a million young people are infected with STIs every day. Evidence has emanated in other surveys on sexually active adolescents below 19 years which showed prevalence of STIs as high as 23% in antenatal clinics, 41% in MCH/FP clinics and 33% from school young people from Kenya (*Ibid*, 4).

This, however, should now make everyone realize that adolescents, whether married or not, need these services just as much as older people do. The necessity to invest in young people's sexual and reproductive health is not only demonstrated by the alarming pregnancy dropout cases in schools and possible

sexually transmitted infections including HIV/Aids, but also by the huge unmet psychosocial and economic effects on the young as a result of unaccomplished educational aspirations. Given that this is the fastest growing group on which the future of the nation is based, and that most of the young people do not use the existing sexual and reproductive health services, possibly because of lack of access, other alternative approaches must be implemented in order to prevent the unwanted consequences of pre-marital sex by school going adolescents.

5.4.4 Difficulties that Adolescents Experience in Reaching the Clinics for Sexual and Reproductive Health Services

From the findings of this study, and other reviewed studies, it stands out that adolescents, in fact, wish to use sexual and reproductive health services at times, but it is made impracticable because of various existing barriers. Adolescent girls that get pregnant while attending school carry the greatest burden of pregnancies and sexually transmitted infections because of the outcomes that have tremendous implications on their health and social well-being, as well as their communities which suffer a very real loss of human potential as a result. It is stated by WHO (1998) that each year 4.4 million women aged 15-19 years of age undergo unsafe abortions, most often carried out illicitly in contaminated environments and commonly by less qualified practitioners (Taffa *et al* 1999:6).

Most literature reviewed has shown that young women make up the bulk of unwanted pregnancies out of wedlock and account for the toll of abortions-related deaths in developing countries. The non use of existing services is due to

the fact that this population faces many barriers in making effective use of sexual and reproductive health services and has been attributed to unfriendliness of service providers, length in time during service provision, clinics being inaccessible when service is desired due to distance and other discomforts.

The negative factors that impinge on their desires to access the available sexual and reproductive health services should provoke every stake holder who is responsible for service delivery, to introspection in order to determine how many adolescents have been failed by the system. It is, therefore, clear that adolescent/youth friendly services are needed in order to provide young people with sexual and reproductive health care which they deserve.

The key elements of a youth friendly service are the principles of privacy, confidentiality and respect for young people, accessibility, gender–friendliness, specially trained service providers and the involvement of young people in implementation as well as evaluation of youth friendly services and programmes (Youth Friendly Health Services in Europe, 2004:16). Youth friendly health services should ensure that there is adequate time for client - provider interaction, where peer counsellors are available, and facilities should have convenient hours of operation. The location should be convenient with no overcrowding and there should never be long hours of waiting for services (*Ibid*, 16).

In addition, the service centres where adolescent are cared for, require systems where accurate information and counselling are available. Sex education should also assist adolescents to delay sexual activities and to increase safer sexual practices which will eventually contribute to improved well-being of young people. This, again, should lead to better decision making by the youth, empowerment and self determination.

5.4.5 Satisfaction with the Sexual and Reproductive Health Services that were utilised

This report has identified the views of the adolescents regarding service delivery by adolescent sexual health clinics in Mochudi. A number of reasons have been identified as being associated with satisfaction or dissatisfaction with service provision which ultimately leads to utilisation or non-use of the sexual and reproductive health services.

As regards the adolescents who expressed satisfaction with the services, they cited knowledge that they acquired through health education as one reason that made them satisfied with the services because through that knowledge they could avoid pregnancies and sexually transmitted infections. Knowledge empowers the young people to be decisive and to take informed decisions. This is significant because an increase in the level of knowledge empowers young people to make informed decisions (Metcalf 2004:42). The same report cites the findings of Hausser and Michaud (1994) which demonstrated that an increase in knowledge and an increase in interventions were found to lead to a rise in

condom purchases implying less unprotected sex, with an ensuing reduction in sexually transmitted infections. It should be noted that knowledge of contraception alone does not predict actual use. This has been demonstrated in the study by Sebone (2001) who cites the World Health Organization/University of Botswana KAP Study (2000) which states that there is high knowledge (e.g. HIV awareness of 95%). However, this knowledge has not been found to be congruent with the actual practices of the young people. This, therefore, implies that the relationship between knowledge and practice is complex.

On the other hand, the demonstration in this study by other adolescents who, despite their knowledge of contraception and other services, expressed dissatisfaction with services provided, communicate significantly to service providers. Various factors were mentioned such as poor services, disrespect by some health workers, inadequate resources in the facilities and long waiting time before services are delivered.

Improving these aspects of clinical service does not require considerable investment or additional external resources. Capacities readily available in the clinical settings and schools can be harnessed to make facilities and services more attractive to adolescent clients. Strategies such as staff commitment, self assessment of services offered, and internal reorganisation regarding the service delivery processes, could play a vital role in making the services and facilities more accessible and more user friendly.

These findings also imply that the existing facilities can be upgraded with minimal monetary investment to meet the reproductive health preferences of adolescents and towards making them more youth friendly. Such strategies would probably be more feasible than establishing new, and often expensive, stand alone services for adolescents such as youth centres.

Not knowing where to go because of fear of meeting older people can be another important factor in preventing young people from accessing the information and care they need. Such findings underscore the need for programmers to address the service barriers regarding facility characteristics, quality of services, community and psychological factors that prevent adolescents from seeking sexual and reproductive health services despite the availability of these services. The need for special training for those involved in service delivery like nurses and other health professionals that would incorporate an understanding of adolescents' developmental stages so that appropriate interventions are adapted, would assist towards such improvements.

5.5 RECOMMENDATIONS OF THE STUDY

In many circumstances poor health is the outcome of many forces beyond a person's control. These forces may be associated with disease environment, family circumstances and personal vulnerability (Lloyd 2007:7). In all this, however, the individual behaviour stands out to be the greatest factor of growing importance to health during adolescence. In particular, unprotected sex and its consequences of sexually transmitted infections, HIV/Aids and unwanted

pregnancy carry a lot of risks for adolescents including the risk of dropping out of school.

The support of the community within which the adolescents live is crucial to the successful maintenance of their sexual and reproductive health. The expectation is that adolescents with supportive families, as well as those that receive encouragement from teachers, would be more likely than others to take health related behaviours seriously in order to avoid the risk of dropout by either avoiding sex, engaging in protected sex and avoiding risky relationships that could predispose them to all the risks associated with premarital sex.

In view of the identified risks among the school going adolescents, the need to develop and implement strategies that would appropriately suit the adolescents' environment can no longer be ignored.

The following are some of the interventions that have been tested and tried in other parts of the world and have been seen to yield positive results. Therefore, similar interventions could be applied to the secondary schools in Mochudi.

- ***Health Related Programmes in Schools:*** The provision of basic preventive or curative health services to schools including reproductive health services within schools is important. In Tanzania, for example, a sexual and reproductive health curriculum was introduced to students. As

part of the program, once or twice a year , teachers took students to a local health facility to familiarise them with services available and to allow them to see condom demonstrations which were not allowed in the classroom situation because of parental and community sensitivities (Lloyd 2007:11). Much more important to school based health investment is the provision of information regarding sexual and reproductive health as part of the life skills and family life education.

The adolescents of Mochudi equally need this frequent exposure to the health facilities in the village in order to familiarise them with available reproductive health services from which they would determine what would be appropriate for them

- ***Health Clubs in Schools:*** Lloyd (2007) cites Duflo, et al., (2006) who recommended the formation of health clubs in schools as being one means of bringing health services closer to the schools although direct measurement of its benefits on reproductive health have not yet been measured. With the positive result of positive knowledge, attitudes and self reported sexual behaviours among adolescents from the completed, carefully documented and implemented randomised school based adolescent sexual health interventions in rural Tanzania, a lot can be learned and applied to secondary school adolescents also.

Active school health clubs need to be established in all the secondary schools in Mochudi in order to bring services closer to the school adolescents. Such clubs would act as resource centres within schools for promotion of behavioural change.

- ***Sexual Behaviour Education:***

There is need by the health and teaching sectors in Mochudi to combine efforts in reaching the students with information through the promotion of school health clubs, clinic visitations and enactment of school health programs. This type of direct service and intervention may result in improved sex education in more conservative areas of schools where such issues are far less likely to be discussed openly and where the possible benefits for adolescents struggling with access to sexual and reproductive health services may be great. The cooperate function of both schools and clinic staff will provide an opportunity to directly serve and advocate for parents on matters of sexuality.

- ***Establishment of ‘Youth–Friendly’ Health Services and Facilities:***

Young people are likely to use sexual and reproductive health services available if they are “youth–friendly” (adolescent friendly) in the true sense of the word (Taffa, et al 1999:13). These clinics must be attractive, but not showy, accessible in terms of physical location and hours of operation;

affordable; confidential and credible to both users and health providers. These clinics need health workers who can understand young people and ones they can communicate with and that are not judgmental or patronising (*Ibid*: 13). According to Kruz, *et al.*, (1995) clinics offering care in this manner must “not be looking like a clinic” because health workers here are empathetic, knowledgeable and trustworthy counsellors. They further described the characteristics of such facilities as being places where young people just jump in and receive all ranges of services in a moment that suits them. Therefore, the health sector needs such beauty.

Recommended Characteristics of Facilities Rendering Youth-Friendly Reproductive Health Services

All facilities in Mochudi, therefore, that are intended to offer adolescent sexual and reproductive health services should have the following characteristics:

- The staff should be well trained to meet the needs of young people
- All providers of care should exercise the ethic of respect for privacy and confidentiality of the services rendered to the adolescents
- Service centres must be conveniently located to promote accessibility and
- Time for service delivery should not be too long and should consider hours that are convenient to young people.

These features described above, and if implemented in Mochudi Village, would portray the beauty of the facilities that would attract adolescent and increase utilisation of the services.

- ***Involvement of the Youth:*** The involvement of adolescents in the projects that promote sexual and reproductive health utilisation can be vital. They will serve as peer educators, develop teaching materials and monitor the activities in school clubs and other health activities in health facilities and community as a whole.

Other positive effects would be that young people would have knowledge and self efficacy. Peer education can play a vital role for adolescents. Young people can easily be influenced by their peers in areas of sexuality (Mitra & Associates 1999-2000:52)

The implication is that such ideas can be adopted and tried among the schools. Therefore, the establishment of adolescent corners in the already existing health facilities, training of peer educators/counsellors and involvement of peers in clinics and school outreach programmes would contribute significantly to the promotion of accessibility of services, thereby preventing barriers of fear, shyness and embarrassment that cause adolescents to shun the utilisation of sexual and reproductive health services in the village.

- ***Reproductive Health Policy for Adolescents:*** The Botswana National School Health Policy is too general in nature. It does not make provisions for adolescent sexual and reproductive health issues or even go so far as to guide teachers on how to implement or access sexual and reproductive health services, like family planning services. The policy simply says the school going children of Botswana are entitled to adequate school health services (Dingake 2001:13).

As regards the National Youth Policy - it recognizes that the youth have to be protected from exploitation, discrimination and abuse but it does not address the sexual and reproductive health issues of adolescents in any detail.

Therefore, issues that pertain to adolescent sexual and reproductive health should be clearly spelt out in order to assist the implementers, such as teachers, to act within the stipulated framework. This could play a significant role in the prevention of pre-marital sex and ultimately its consequences like dropouts due to pregnancies, STIs including HIV/Aids, among the adolescents who attend school.

- ***Community support:*** The support of the community would be crucial to the success of promotion of utilisation of adolescent sexual and reproductive health services. Adolescent sexual and reproductive health messages are sensitive topics to discuss among most of the African

cultures. In order to obtain permission to discuss such issues in the community, gatekeepers which include religious, government and local leaders in Mochudi will have to be involved. Community leaders, including the religious leaders, need to learn about the risks of premarital sex and those associated with unsafe sexual practices. The use of *kgotla* meetings, parent-teachers' association meetings and other appropriate forums can assist implementers to educate the community regarding the need for their support in the success of prevention of unwanted pregnancies.

Finally, another recommendation is that there is a great need to conduct studies to:

1. Evaluate the school health program in Mochudi. This will assist in determining how much promotion of health behaviour among secondary school adolescents is done regarding sexual and reproductive health by the health personnel and teachers.
2. Determine knowledge, attitude and practices (KAP study) among the secondary school teachers and service providers in health facilities in the village as regards sexual and reproductive health services for adolescent students.

5.6 CONTRIBUTIONS OF THIS RESEARCH

This study was conducted among the secondary school adolescents in Mochudi. The aim of the study was to establish the utilisation of adolescent sexual and reproductive health services, in view of the prevalence of school dropouts as a result of unwanted pregnancies. The study revealed various factors that promote or hinder utilisation of services by the adolescents. These findings agree with findings from various studies in other countries that have been referred to in this study.

The study revealed that adolescents can be aware of the existence of sexual and reproductive health services in their environment. However, knowledge of the services or facilities that are offered to adolescents is, in itself, not sufficient to promote utilisation.

The findings also indicate adolescents indulge in premarital sex. This has been deduced from the fact that some seek services like condom supply, voluntary counselling and HIV testing, antenatal and postnatal care including pre- and post abortion counselling. These findings are highly indicative of active sexuality among this age group which suggests the need to support the young people's sexuality.

Much information has been revealed regarding utilisation of sexual and reproductive health services. In addition to knowledge, much more is needed to promote utilisation of services. The quality of care given to them is vital.

Factors regarding respect, time schedules for services provision, location of facilities and availability of resources can either hinder or promote the young peoples' utilisation of the services.

Adolescents can be shy and uncomfortable with seeking help regarding sexuality from the facilities. However, with members of staff that are cooperative and friendly much can be done to reach the young people with services that can prevent a lot of sex related risks.

5.7 LIMITATIONS OF THE STUDY

The study did not progress without the investigator experiencing some difficulties. The technique used to sample participants could not be used to make generalisation. A non-probability sampling technique was used to identify participants for the study because of the sensitive nature of the study.

The topic of study was such that random selection of informants would have been difficult because not all the students in the schools are sexually active, and not all of them would have consented to participate in this study if they were randomly selected. Therefore, the researcher adopted the convenience method.

The likelihood of having omitted credible informants cannot be ignored by virtue of the nature of study. The other probable limitation would be that of friendly influence in participation, which despite the measures the investigator applied during sampling process, cannot totally be ruled out.

The other difficulty the researcher experienced was the sample size. Initially the intended sample was 417 subjects. Unfortunately a short fall was experienced from the intended 417 sample size due the following factors;

Fifty two (52) adolescents terminated their involvement prematurely by either answering the demographic questions in the questionnaire only or did not answer any of the questions in the questionnaire at all. Three (3) other questionnaires which were received yielded poor information and were discarded.

The study was conducted in Mochudi Village in Botswana among secondary school adolescents. The findings of this study are, therefore, really only valid for adolescents attending secondary schools in Mochudi Village and generalisation is not possible. However, in other similar areas with a similar demographic structure, most of the findings could be valuable indicators.

5.8 STRENGTHS OF THE STUDY

As for the strengths of the study, most of the adolescents in the age range of 16-19 years were keen on participating in the study and, therefore, they were easily

accessible. The response rate of 86.8 percent in this study is excellent and can, therefore, be said to make the findings reliable (Polit & Hungler 1999: 348).

Members of staff (especially teachers) were very cooperative during the entire process. This added further credibility to the study.

The findings of this study among the adolescents in Mochudi regarding the utilisation of adolescent sexual and reproductive health services can be said to be valuable and noteworthy.

5.9 CONCLUDING REMARKS

Adolescent boys and girls represent a challenging client population for both schools and for health service providers. This population group is even more challenging if boys and girls reach adolescence and are still illiterate. They, then, have no language and critical thinking skills to empower them to negotiate this complex stage of their lives. It is a period during which most of the young people become aware of their sexuality and begin to explore it. As a period of transition into adulthood, most adolescents pass through without negative health outcomes, but many do not (Langille, et al/ 2000:2).

The challenges to the moulders of adolescents like the parents, educators and health services providers, remain to be enormous. It is at this point in life that adolescents are expected to assume increasing responsibility for their own health through proper assessment of risks and adoption of healthy lifestyles. The foundation laid for the adolescents in terms of their health education, therefore,

becomes very important for their future. Without an adequate educational foundation many of the school based sexual and reproductive health programmes designed for the adolescents are bound to fail.

While adolescents, in general, are especially vulnerable to HIV/Aids and other negative vices in life, special attention must be focused on the school going adolescents in order to sustain the future of the nation. Recognising the sexual and reproductive realities of young people is not an easy journey for adult caregivers and caretakers in most societies. The traditional values that govern societies, nonetheless, continue to play and influence the fulfillment of roles of educators and caregivers.

Cultural expectations associated with sexual relationships and gender roles in some societies determine the perceptions and attitudes to sexual and reproductive health services. It must be remembered that young people's low socioeconomic status can also lead to sexual exploitation since transactional sex puts them at high risk such as the 'Sugar Daddy' and "taxi-driver" relationships seen in many cases with school going adolescents.

Education may increase young women's status and opportunities that would assist them in making critical decisions regarding sexual matters because even where the services are accessible, adolescent women may lack the power to bargain in order to make use of the available condoms for fear of being accused

of infidelity, disease or mere rejection of the partner. Other adolescent merely do not understand the consequences of early childbearing during adolescence.

Clearly adolescents often have little choices relating to their sexual and reproductive health, they lack skills, and service necessary to make informed decisions. This transitional period of adolescence offers great opportunities to adjust health related behaviours before they become established. However, to do so it requires overcoming barriers and other experiences at different levels.

Accurate and relevant information is an obvious requirement for making decisions regarding sexuality, and accessibility to service provision. The schools will provide good opportunity for providing such good programmes since, with training, even the class teachers would coordinate sessions. Strategies like formation of health clubs, periodic clinic visitation for information, where peer educators would be able to interact with the school boys and girls would facilitate understanding and interest in seeking and utilising sexual and reproductive health services.

Health centres are in a position to provide information and counselling to adolescents. Through school health services, the adolescents can be educated regarding various aspects and issues regarding sexuality. However, the unresponsiveness to the needs of adolescents in schools, unfriendly attitude of staff at clinics, geographical locations of the clinics where they can access

reproductive health services, and other factors, stand to hinder the empowerment of the needs of adolescents.

From the perspective of policy makers, changing these factors that hinder utilisation of sexual and reproductive health services will be a positive cost benefit trade off. These benefits can be reached by the existing staff with a small amount of extra training in order to make the available services friendly. In making such changes, it is important to recognise that school and health service targeted interventions will have limited effects if the wider socioeconomic context remains unchanged. Long-lasting change will only take place if recognition of adolescent health is given priority at all levels of policy making. Such adjustments require a change of attitude rather than vast resources.

As more adolescent-targeted interventions are implemented in schools, more encouraging evidence is expected to emerge like reduction in unwanted pregnancies and sexually transmitted infections including HIV/Aids, thus leading to greater benefit for the next generation in the country.

Delaying or failing to act on corrective measures regarding hindrances that prevent adolescents from utilising reproductive and sexual health services will be a missed opportunity that will ultimately bear tragic consequences for the youth of today and of tomorrow in Botswana. Therefore, for the health of the nation to

be totally realised, the youth of Botswana should remain the main focus for intensive interventions as it holds the future of the country.

5.9.1 Implications of the study

5.9.1.1 Policy Makers: The need for an effective framework of action as regards implementation of adolescents' sexual and reproductive health services cannot be overemphasized. This would assist the implementers to adequately function within the defined parameters. The Identification and correction of gaps in the current framework that have disabled major players like teachers, health worker and others would be a step in a right direction as far as prevention of unwanted pregnancies and sexually transmitted infections is concerned.

5.9.1.2 Nursing education: The understanding of adolescence as a transition phase to adulthood, with its characteristics that influence the young people's behaviour would enable nurse educators and practitioners to deal with the young people appropriately. It's therefore imperative for care givers to uphold the ethic of respect for privacy and confidentiality of the services rendered to the adolescents. This therefore calls for the need of adequate training of all care givers involved with the adolescents.

5.9.1.3 The Community: The involvement of school adolescents in sexual and reproductive health activities undoubtedly raises controversies among various cultures. However, the prevention of unwanted pregnancies and sexually transmitted diseases among this age group would be unachievable without the support of the cooperate bodies in society like churches, community leaders,

parents and other support groups, hence the need for cooperate approach in order to achieve the aspirations of the country.

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21st September 2007

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Dear Sir/Madam,

SUBMISSION OF RESEARCH PROPOSAL TITLED 'UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY SECONDARY SCHOOL ADOLESCENTS IN MOCHUDI

I wish to submit the above stated research proposal for approval.

I am a student of Health services management at the University of South Africa. I will conduct this research for academic reasons in partial fulfillment for the award of Master in Health studies with specialization in Health services management. Collection of data for this research is tentatively scheduled to commence in October 2007.

It is hoped that the study will create an understanding as to what extent the adolescents' sexual and reproductive health services are utilised in Mochudi village. The findings will help health service providers in the planning for health services for young people in the village.

I will highly appreciate if permission would be granted for me to undertake this study.
Attached is the proposal print out and application for approval forms.

Yours faithfully,

Ngomi K. Bruce

TELEPHONE: 3632000
FAX: 3914467
DEPT. OF PPM&E
HEALTH RESEARCH UNIT



MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE
BOTSWANA

MINISTRY OF HEALTH

REFERENCE: PPM&E 13/18 PS Vol II (66)

September 27, 2007

Ngomi K. Bruce
Molepolole Institute of Health Science
P.O. Box 684
Molepolole

**Research Permit: Utilisation of Sexual and Reproductive health services by
Secondary school adolescents in Mochudi.**

Your application for a research permit for the above stated research protocol refers. We note that you have satisfactorily revised the protocol as per our suggestions.

Permission is therefore granted to conduct the above-mentioned study.
This approval is valid for a period of 1 year, effective September 27, 2007.


The permit does not however give you authority to collect data from the selected secondary schools without prior approval from the management of the schools. Similarly, consent should be sought from all participants prior to data collection.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal will need to be resubmitted to the Health Research Unit in the Ministry of Health.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research Unit, Ministry of Health within 3 months of completion of the study. Copies should also be sent to relevant authorities.

Approval is for academic fulfillment only.

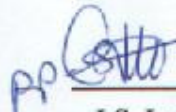
Thank you,


L. M Moremi, A.g CRO
For Permanent Secretary, Ministry of Health



SAVINGRAM

FROM: Chief Education Officer
South Central Region


I.S. Lubinda

TEL. NO: 3901263
FAX. NO: 3975899

TO: School Heads
Mochudi

REF. NO: 1/15/2 I

11 June 2007

UTILISATION OF SEXUAL AND REPRODUCTION HEATH SERVICE

Mr. N.K. Bruce is conducting a research as shown on the caption above.

Please assist him in the best possible way.

Thank you.



CONSENT FORM

By signing this document, I am giving consent to be interviewed by the researcher. I understand that I will be part of the research study that is looking into the utilisation of adolescents' sexual and reproductive health services in Mochudi. I will be given a questionnaire to answer at school. I understand that I have been selected to participate in the study because am a secondary school adolescent aged between the age range 16 to 19 in Mochudi where the researcher is conducting the research. I was informed that the participation would be entirely voluntary and that am free to withdraw at anytime.

I have been informed that the answers I will give will not show my name. I will also not be identified in the final research report.

This study will help to better understand the utilisation of the available adolescent sexual and reproductive health services in Mochudi. This will help in identifying ways to improve utilisation of sexual and reproductive health services for secondary school adolescents in Mochudi

I also understand that results can be given to me if I ask for them and that Mr. Ngomi Bruce is the person to contact if I have questions about my rights as a participant. Mr. Ngomi can be reached through cell number 72570828 or work line 5920361 or by contacting his employers at Molepolole institute of health sciences or the Ministry of Health Headquarters.

Participant's Name

Participant's signature

Date: _____

Researcher's Name

Researcher's Signature

Date: _____

SELF ADMINISTERED QUESTIONNAIRE

A STUDY TO DETERMININE THE UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY SECONDARY SCHOOL ADOLESCENTS IN MOCHUDI

QUESTIONNAIRE NO: -----

INSTRUCTIONS TO THE RESEARCHER

- 1. Introduce yourself to the respondent**
- 2. Explain the purpose of the study**

SECTION A.

DEMOGRAPHIC DATA

1. What is your gender
Male

Female

2. Are you aged between 16 and 19 years?

Yes

No

3. Which form are you currently enrolled for?

Form 1-3

Form 4-5

4. Are you aware that there are clinics that provide adolescent sexual and reproductive health Services in Mochudi?

Yes

No

5. If yes have you visited any clinic to receive sexual and reproductive health services?

Yes

No

6. If yes was it a government clinic or Bofwa?

Government

Bofwa

7. If No are you aware of another place in Mochudi where you can get these services other than at the clinics mentioned above?

Yes

No

8. If yes which other places do you get these services from other than the clinics?

9. If you have used the clinic facilities or any other apart from the clinics, were you happy with the services you received?

Yes

No

10. Please explain your answer to the above question

11. Which of the following services did you receive?

Please tick under Yes or No

REPRODUCTIVE HEALTH SERVICE	Yes	No
Collection of Condoms		
Family planning		
Voluntary counseling and HIV testing		
Antenatal Care		
Postnatal Care		
Treatment of sexually transmitted infections		
Pre and Post abortion counseling		

Others: Please
specify _____

12. Do you have any difficulties in reaching the clinic for sexual and reproductive health services of your choice?

Yes

No

13. If yes what difficulties do you experience?
