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Factors that Malawian adolescents from co-educational secondary schools of Lilongwe and Mchinji identity as affecting their ability to discuss sexual issues

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FACTORS THAT MALAWIAN ADOLESCENTS FROM CO-EDUCATIONAL SECONDARY SCHOOLS OF LILONGWE AND MCHINJI IDENTIFY AS AFFECTING THEIR ABILITY TO DISCUSS SEXUAL ISSUES.

By

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Abstract

The purpose of this study was to explore the factors Malawian adolescents from co-educational secondary schools identified as affecting their ability to discuss sexual issues. A sample of 149 adolescent students from the co-educational secondary schools of Lilongwe and Mchinji districts was surveyed. Their ages ranged from 14-18 years of age. The schools and participants were chosen using cluster-sampling and data were obtained via a questionnaire. The questionnaire comprised of demographic variables, sources of sexual information, participant's sexual life, the sexual issues participants consider important and their ability to communicate sexual issues comfortably with different community members.

Data were analysed using descriptive statistics, frequencies, Chi squares and analysis of variance. Findings showed that almost all the participants had reached puberty, with the mean puberty age being 14.6 (SD = 1.2). Thirty-nine percent of the participants were sexually active with a mean age at which sexual intercourse was initiated at age 14.73 (SD = 2.5). Gender and age were significantly associated with having sexual intercourse. The mean number of sexual partners was 1.6 (SD = 1.3). The participants primarily obtained sexual information from their friends. Males were more comfortable discussing most sexual issues with other males while females were comfortable discussing the majority of sexual issues with both males and females. A relationship between the study and Social Cognitive Theory was made.

The study has implications to nursing practice, research and education. The findings suggest the need for sex education in Malawi, be it at home, school, church or a health facility. In addition to teaching adolescents what they would like to know, emphasis is to be on information that would enable them to make informed sexual

decisions, negotiate sexual activity, practice safe sex or abstain from teenage sexual activity.

Declaration

"I certify that this thesis does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any institution of higher education and that, to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text."

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I would like to dedicate the work of this study to two special people were a part of my life, my deceased mother and husband. My mother constantly encouraged me to study hard, which I did. Unfortunately, she did not live long enough to see me graduate with my Masters degree. Mother, I still honor and respect your love.

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Chapter One

Introduction

Adolescence is a time of exploring one's identity. One area, which is frequently explored, is sexual activity. A number of factors interact that affect the adolescent's ability to discuss sexual issues. Such factors include the fear of destroying romance, embarrassment, believing that non-verbal clues are more important than verbal ones and trusting their sexual partners (for example, assuming that what the partner says is true) (Wilson & Lavelle, 1992; Sawyer, Demond & Joseph, 1996; Lock, Ferguson & Wise, 1998).

Experience has shown that in Malawi, Africa, sexuality related issues are regarded as confidential, therefore discussing such issues is considered obscene or taboo. Consequently, the rate of unplanned teenage pregnancy, maternal mortality and sexually transmissible diseases (STDs) including Human Immune-deficiency Virus (HIV) and Acquired Immune-deficiency Syndrome (AIDS) remain high, even among adolescents. Without question, adolescents are sexually active. The researcher assumes that if adolescents can discuss and negotiate sexuality-related issues, they will have knowledge to make informed decisions relating to their sexual activity and sexual health. Through such discussions, adolescents will have the information to abstain from sex, practice safe sex, so reducing the risk of unplanned teenage pregnancy, contracting STDs and HIV/AIDS, or not practice safe sex.

The purpose of this study was to examine the factors, a sample of co-educational secondary school adolescents of Mchinji and Lilongwe districts of the central region of Malawi, identified as affecting their ability to discuss sexual issues. Adolescence is the period of development from childhood to adulthood (Chiluzi, 1997). In this study, an adolescent was regarded as a boy or

girl from 12 to 18 years of age regardless of whether or not puberty had been reached. In this study, the country of Malawi will be described, followed by an outline of the study's background, significance and purpose. Following this will be the study's objectives, definition of terms and organisation of the thesis.

Introduction to Malawi

This study was conducted in Malawi, which is a landlocked country in East Central Africa. The country is bordered by the United Republics of Mozambique to the east and south, Tanzania to the north and Zambia to the west (Figure 1). The country is zoned into three regions, north, central and south. People in the three regions are of different tribes and their norms, beliefs and values sometimes differ. For example, Tumbukas are mainly found in the northern region, Chewas and Ngonis in the central while Yaos are in the southern region. Tumbukas mainly practice *lobolla* which is a price paid to the groom before marriage, Chewas and Ngonis are well known of their famous *nyau* dance with its beliefs and superstitions while the Yaos practice male circumcision, and female ritual ceremonies as they advocate early marriage.

According to the 1994 demographic and health survey report, the country has slightly over 10 million people with 11% living in the northern region, 39% in the central and 50% in the south (Community Health Sciences Unit (CHSU), 1996). Forty six percent of the population is aged under 15 years, 50% between 15 and 64 years while 4% is aged between 65 and over (United Nations & Malawi Government (UN&MG), 1993). The fertility rate is 7.6 births per woman and the population is growing at the rate of 3.7% per annum with a contraceptive prevalence of 1% (Bissio, 1995; UN& MG, 1993). Eighty percent of the population has access to health services (UN&MG, 1993). Literacy level

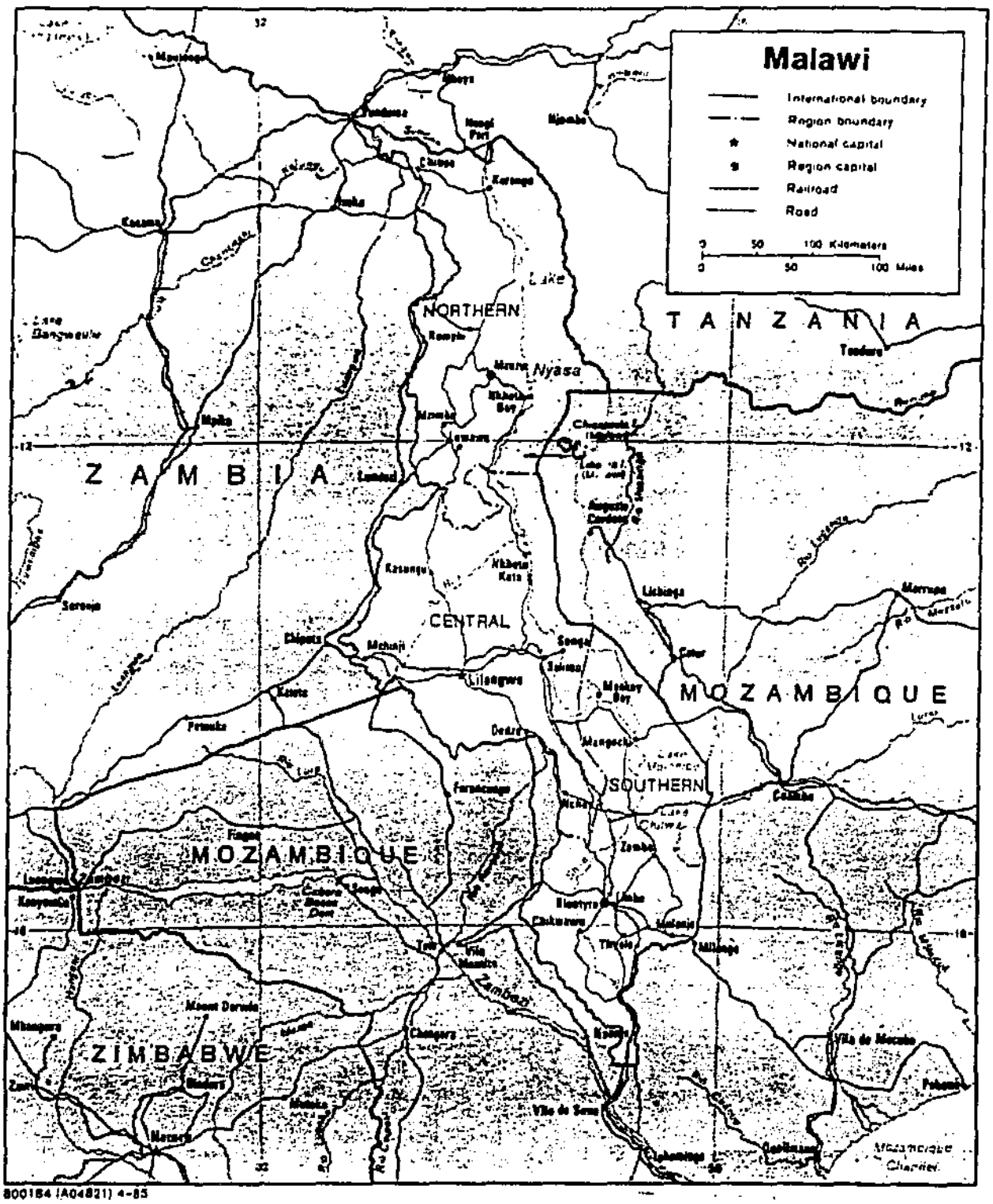

Figure 1: Map of Malawi

stand at 65% for males and 34% for females with a primary school enrolment of 72% males and 60% females and a secondary school enrolment of 5% males and 3% females in 1990 (Bissio, 1995). Only 12% of the population live in the urban area (Bissio, 1995).

Background to the Study

Adolescence is the period of rapid growth and development as an individual transits from the dependency of childhood to the independence of adulthood (Chiluzi, 1997; Kubolck, Earls, & Montgomery, 1988; Kuczyunski, 1988; Monsen, Jackson, & Livingstone, 1996). This transition may be associated with sexual experimentation as the individual searches for identity. Globally, the problems that occur as a result of early and unprotected sexual activity are unplanned pregnancy, induced abortions, high drop out rate from school among girls, and contracting of sexually transmissible diseases including HIV/AIDS (Chiluzi, 1997; Creatsas, 1993; Fantini, 1983; Griffin & Brecht, 1995; Karigu & Zabin, 1993; Monsen et al., 1996; Ndovi, 1996).

Ndovi (1996) asserts that approximately one out of ten girls between the age of 14 and 19 become pregnant each year all over the world, a large proportion of which is unplanned. Pregnancies occurring in girls under 18 years of age are considered a 'high risk' for the mother and infant due to physiological, psychological and social reasons (National Safe Motherhood Task Force, 1995). The infant and maternal mortality is usually high in such pregnancies.

Globally, the number of female adolescents aged between 13 and 19 who contract STDs, including HIV/AIDS, is increasing at a high rate (Guthrie, Wallace, Doerr, Janz, Schottenfeld & Selig, 1996). The average length of time

between HIV infection and development of AIDS is 10 years (Guthrie et al., 1996). Guthrie et al. contend that more young adults in the age group of 20-29 are becoming HIV positive suggesting that they were infected during adolescence. These statistics can be attributed to adolescents engaging in high-risk sexual activity. Such high-risk sexual behaviours include early sexual intercourse initiation, multiple sexual partners, and non-use or inconsistent use of condoms. Low risk and self-protective sexual behaviours include consistent and correct use of condoms or abstinence (Guthrie et al., 1996).

Gay (1992) and Kunene (1995) report that in many countries, adults do not spend much time talking with adolescents, and in some countries, the discussion of sex between parents and children is regarded as taboo. One such country where this occurs is Malawi. Chiluzi (1997) reports that from a study conducted in eight districts of Malawi, the discussion of sexual issues between parents and adolescents is regarded as 'delicate'. Adolescents are often referred to a *nankungwi,* women/men who counsel adolescent girls and boys respectively on sexual issues. Apart from the *nankungwi,* adolescent girls are referred to grandmothers, and boys to their grandfathers for sexual counselling (AIDS secretariat, 1994, National Safe Motherhood Task Force in Malawi, 1995). Ideally, the information which adolescents receive is supposed to help them make concrete sexual decisions and engage in self-protective sexual behaviours or abstain, from pre-marital sex. However, the incidence of conditions such as pregnancy and STD, which result from early sexual intercourse among the adolescent community in Malawi, still remains high.

The National Safe Motherhood Task Force in Malawi (1995) reports that the high rate of teenage pregnancy is exacerbated by the advice given to young girls by the *nankungwi* who do not always promote safe sex and reproductive

behaviour. Of the 933 abortions that occurred at Lilongwe Central Hospital in Malawi (LCH) in 1995, 23% were performed on unwed adolescents while Queen Elizabeth Central Hospital reported that 30% of all abortions were performed on adolescents (Chiluzi, 1997). Similarly, Ndovi (1996) reports that 15-20% of all pregnancies from LCH in 1996 occurred in adolescents aged between 14-19, while 33% of the 118 maternal deaths in 1990 were aged 16-19 (National Safe Motherhood Task Force in Malawi, 1995). Despite such high rates of abortion, maternal deaths, teenage pregnancies and the enormity of financial costs plus social problems generated in the community, Ndovi contends that very little is being done to address the problem. The area of teenage sexual activity remains neglected.

The Malawi government has introduced radio programmes that focus on sexual issues among adolescents. These programmes include *Straight Talk* and *Tinkanena* which function as a means of addressing sexual issues among the adolescents. The main message of the radio programmes is to encourage adolescents to 'say no' to sexual activity or 'yes' to practice safe sex. Despite this, many people do not condone the promotion of open sexual discussion. Sexuality education is not given in Malawian schools (Munlo, Chisiza, Maluwa, Khonje, & Chitsulo, 1995). As a consequence, adolescents have limited information on sexually related issues. Alade (1989) and Creatsas (1993), contend that lower adolescent pregnancy and abortion rates were reported in countries where sex education is taught in schools. This implies that sex education assists adolescents to make informed decisions, negotiate sexual activity and practice safe sex or abstinence.

Lear (1995) states that practising safe sex involves sexual negotiation, which requires a degree of open communication about sexual desires. The

problems resulting from sexual activity that adolescents in Malawi experience may be influenced by the lack of adequate information and ineffective skills for discussing and negotiating sexual issues among adolescents. Inadequate information and ineffective skills can affect an adolescent's ability to decide whether or not one should engage in sexual activity and whether or not one should practice safe sex.

The Research Problem

During the period of adolescence, an individual explores the self and seeks identity (WHO, 1997). One area that is frequently explored is sexuality. Some studies regarding the sexual life of adolescents indicate that they become sexually active as a result of pressure from peers, or in response to sexual desires. Unplanned or unprotected sex often leads to problems such as teenage pregnancy or contracting STDs such as HIV/AIDS and loss of social position in society through dropping out of school. It is essential then, to identify means through which adolescents can be helped to either abstain from sexual activity or to use sexual self-protective measures such as condoms. The ability to abstain from sexual activity or practice safe sex requires an ability to discuss and negotiate sexual activity. However, no research was identified in Malawi and little elsewhere, that has explored the factors that affect adolescent's ability to comfortably discuss and negotiate sexual issues.

Significance of the Study

Programmes that promote self confidence, assertiveness and decision making can help adolescents overcome some of the problems they encounter in negotiating sexual issues (Karigu & Zabin, 1993). The majority of current

interventions addressing adolescent sexual activity are not based on research nor do the interventions address issues important to adolescents (Monsen et al., 1996). The first step to develop an appropriate intervention for Malawian adolescents is to explore what the adolescents say affects their ability to discuss sexual issues. Research undertaken in the Malawian setting has mainly examined teenage pregnancy, not sexual issues. It is necessary to undertake such research now, as the problems adolescents face associated with engaging in early sexual activity (such as teenage pregnancy, HIV/AIDS), are increasing.

This research was conducted in Malawi. The knowledge gained from the study will be particularly useful for Community Health nurses in Malawi as it will enable them to target and understand the sexual health needs of adolescents. The results will also assist nurse educators to ensure that adolescent sexual health is included in nursing curricula so that graduate nurses are equipped with the knowledge and skills to address the sexual health concerns/needs of adolescents in any setting.

Findings from the study would be an essential step in the development of programmes addressing teenage sexual behaviour in Malawi. They would also be beneficial to organisations that have an interest in promoting the sexual health of adolescents. Lack of school sex education curricula has influenced some teachers to conduct sex education classes of their own accord (Munlo et al., 1995). The identification of the perceived sexual educational needs for Malawian secondary school adolescents, findings of the study may also act as baseline for formulating school sex education programmes through the involvement of teachers and Community Health nurses.

Parents have been considered as ideal, primary sex educators for adolescents (Baumeister, Flores & Marin, 1995). However, parents in Malawi

rarely discuss sexual issues with adolescents as such discussions are considered taboo (Banda et al., 1997; Chiluzi, 1997; National Safe Motherhood Task Force in Malawi, 1995). Results from this study may assist parents to re-assess their beliefs and hopefully begin to discuss sexuality issues with their adolescent children. Through the introduction of sex education in schools, the future generation might perhaps be able to also break the taboo against the discussion of sexual issues.

The Purpose of the Study

The purpose of the study was to explore and describe the factors that secondary school adolescents of Lilongwe and Mchinji districts report as affecting their ability to discuss sexual activity. In addition, it was to identify whether or not the adolescents were sexually active. The specific objectives for the study were:

1. To determine whether or not Malawian secondary school adolescents are sexually active;
2. To investigate where adolescents obtain their sexual information;
3. To investigate what sexual issues adolescents consider important;
4. To determine the sexual issues that adolescents would like to be better informed about;
5. To investigate with whom adolescents can comfortably discuss sexual issues;
6. To investigate whether demographic factors (age, gender, tribal background, family background, religion, educational level, parental education and economic status) influence the adolescent's comfort in discussing sexual issues;

7. To investigate the situations in which adolescents can comfortably discuss sexual issues; and
8. To investigate the mode of communication that adolescents prefer when discussing sexual issues.

Definition of Terms

Comfortable discussion of sex: Being able to talk openly and without embarrassment to another person about sex related issues (Byer & Shainberg, 1994).

Puberty: "The time of life when the body begins making adult levels of sex hormones and the young person takes on adult body characteristics" WHO, 1997, p.A-19). In males, this is primarily characterised by the enlargement of the penis and testicles (Uganda Ministry of Education and Health, 1987). Enlargement of the testicles enables them to start producing sperms, contained in semen, which might come out of the penis at night as the boy is sleeping. In females, puberty is primarily characterised by the commencement of the menstrual cycle (Uganda Ministry of Education and Health, 1987).

Sexuality:

Sexual activity: Sexual activity is defined as "the verbal and non-verbal expressions of sexuality and includes both genital and non-genital activity" (Fogel & Lauver, 1990, p. 2).

Sex education: Education aimed at providing children (adolescents) with self awareness, guidance, responsible decision making or communication so that they understand the physiological and sociological aspects of human sexuality (Szirom, 1988, p. 77 & Kunene, 1995).

Organisation of the Thesis

This thesis will be organised in the following manner: Chapter One provides an introduction to the study. In Chapter Two a critical review of the literature regarding teenage sexual activity is presented. It also introduces and justifies the chosen theoretical framework for the study, which is Social Cognitive Theory. In Chapter Three, there is a description of the method of investigation used for the study while Chapter Four presents the research findings. Discussion of the findings with reference to existing literature is in Chapter Five. The chapter also presents a relationship of the study to the theoretical framework and provides the strengths and limitations of the study. Chapter Six presents implications and recommendations for future practice, education and research.

Chapter Two

Review of the Literature

This chapter will review the literature and research in the area of adolescent sexual activity. Firstly, factors influencing the sexual activity of adolescents will be examined. This will be followed by adolescent's knowledge about sexual issues, safe sexual practices, then sexual communication and negotiation among adolescents. Finally, sources of sexual information will be presented. Themes common to the present study and existing research in the field of adolescent sexual activity will be explored. Particular emphasis has been placed on studies conducted in Africa. Due to a limited number of studies in the African context, studies from other countries have also been included.

Sexual Life of Adolescents and Influencing Factors

It is estimated that more than half of the world's population is below 20 years of age (WHO, 1996a). Approximately 80% of single adolescents are sexually active during their teenage years with the initiation of intercourse rising sharply with age (Felton, 1996). Several researchers have reported that adolescents initiated sexual activity at approximately 13-15 years (Cole & Slocumb, 1995; Felton, 1996; Karigu & Zabin, 1993; Kau, 1991; Reis & Herz, 1987; Tucker, 1991).

Mogotiane (1993) interviewed 43 pregnant black Zimbabwean adolescents to identify their educational level. It was found that 35% of the adolescents were still attending primary school. However, age and the primary school grade of the participants was not specified. Munlo et al. (1995) examined 100 Malawian adolescents who ceased attending primary school due to pregnancy. Eleven percent were in the age group of 12-

15 years, and 81% in the 15-19 year age group. This suggests that in Malawi, as in other countries of the world, adolescents become sexually active at a young age.

The decision for adolescents to become sexually active depends on many factors. Keller, Duerst and Zimerman (1996) studied the reasons 62 male and 53 female adolescents of midwestern states of America gave for practising abstinence, safe, or unprotected sex. The average age of the participants was 17.5 years. Results showed that the main predictors of sexual behaviour were social norms, fear, gratification, pleasure and availability of condoms. O' Hara, Messick, Fichtner and Parris (1996) used a school-based programme to measure health risk behaviour in order to reduce the risk of STDs/AIDS among 83 adolescents aged 15-20 years in Florida, United States. It was found that 86% of the participants reported having had a sexual encounter, with a mean age of first sexual intercourse at 12.5 years for males and 13.6 years for females. Sixty percent indicated having had one sexual partner while 10% had two or more. Missing data occurred primarily from those who indicated having had no sexual encounter. More than 90% of boys and girls believed that almost all their classmates were sexually active. Sixty five percent of females thought their friends would think it's okay if they had sex while only 16% thought their families would think it's okay. Comparable statistics for boys indicated 86% and 50% respectively. Seventy percent of boys and girls believed their friends and families would think sexual activity was permissible if they used condoms.

Similar results were found by Monsen, Jackson, and Livingston (1996) who interviewed 45 American adolescents aged 12-14 years in order to explore their views on being sexually active and using protective measures prior to sexual intercourse. The study found that cognitive development, psychological characteristics and psychosocial-needs were central influences on an adolescent's decision to become sexually active. Those who abstained from early sexual activity reported wanting 'a better future'

including love, marriage and children. Some of the sexually active participants reported experiencing strong sexual desires that was nearly impossible to resist. Boys were more likely to have used condoms, while girls expressed a fear of pregnancy, disease and death.

Sawyer, Desmond and Joseph (1996) used a convenience sample to study sexual life among 124 deaf and 181 hearing American University students. The students were 18 years of age and older. A questionnaire was administered and findings showed that 91% of the hearing and 84% of deaf students were sexually active. Males in this study were more likely to have had a greater number of sexual partners than females. Fifty-five percent of hearing and 63% deaf students reported not having used a condom during the last sexual encounter. Nineteen percent of deaf and 16% hearing students reported at least one previous pregnancy or having impregnated a partner, while 24% deaf and 14% hearing students reported being forced into having sex. While Sawyer's research offers valuable insights, comparing the behaviour of hearing and non-hearing students was limited. Rather than hearing status, gender was identified to be a more valid and meaningful variable by which to measure comparable behaviour.

In most cultures, adolescents are encouraged to abstain from early sexual activity and focus on future issues such as marriage, career, children and health. In such cultures, including Malawi, parents advocate abstinence before marriage and youth are encouraged to 'say no' to sex. Such assertions are however, contrary to current practices (Banda et al., 1997; Chiluzi, 1997). Schwartz (1996) identified that the 'say no' approach is not effective in delaying the onset of sexual activity. Instead, it promotes teenage pregnancy and the spread of STDs and HIV/AIDS. Rather than saying 'no', adolescents should be encouraged to discuss safe sex, condom use and responsible sexual decision making. Schwartz (1996) who administered a questionnaire to 217 United States and 186 Swedish female undergraduates of unspecified age, identified this

finding. The aim of the study was to examine whether providing young women with sexual information promoted or discouraged sexual activity. Conclusions revealed that the more sexual education the participants received, the more likely they were to practice safe sex and so prevent pregnancy, STDs and HIV/AIDS. A similar finding by Dilorio, Eaton, Maibach, Rivero and Miller (1996) identified that mothers discussed sexual issues with their adolescents, especially girls, in order to help them develop assertiveness, control their sexual encounters and practice safe sex. The mothers did so because they believed their children were sexually active and that it was insufficient for them to 'say no' to sex. However, in Malawi, no study has been located to identify the effectiveness of the 'say no' approach.

For those young people who do not abstain from sexual activity, psychosocial factors also influence their decision-making. Tucker (1991) studied the sexual life of 250 African-American males in the United States aged 12 years and above. The participants completed an anonymous questionnaire. Thirty four percent of the subjects reported becoming fathers while still in their teens. Reactions from their families ranged from 'happy' to the worst thing *they* had ever done. About 26% had sisters who became adolescent mothers while 21% had brothers who became fathers as adolescents. Findings from this study suggest that if sexual activity at a young age is acceptable in the particular social group, then the adolescents are more likely to become sexually active. In Malawi, little research has been conducted regarding tribes that encourage teenage pregnancy. Although the Yao tribe has been reported to advocate early marriages (AIDS Secretariat, 1994), few statistics on pregnancy exist.

Feldman, Shortt, Hollowaty, Harvey, Jamal and Rannie (1997) studied 605 virgin and 321 non-virgin Canadian high school students in grades 9-12 (approximately 12-18 years of age). It was found that being female, in grade 9, 10 or 11, doing more than 14 hours of homework a week and being of Asian ethnicity was highly associated

with virginity. Parental education, birthplace, family functioning and religious attendance were not significantly associated with virginity.

Mathews, Averett, Binedell and Steinberg (1995) identified that religious practices were an important reason for maintaining virginity among South African Muslim adolescents. Mathews at al. used student focus groups and teacher focus groups to examine sexual activity of Islamic adolescents. The findings showed that boys and girls were interested in casual relationships and changing partners but they could not do so because sex is forbidden in this community. Virginity among girls is greatly prized. Despite this, many participants expressed the pleasure they had experienced in a sexual relationship. Teachers indicated that it is taboo to talk about sex and that sex before marriage and homosexuality are sins. In order to avoid sex outside marriage, it is a norm for girls to be given into an arranged marriage soon after they reach menarche.

Karigu and Zabin (1993) surveyed 3,032 co-educational school adolescents in Kenya to investigate factors associated with premarital sex. Of these participants, 57% were male. The average age was 15 years among primary students, 17 years among secondary students and 18 years among vocational students. The researchers found that males were more sexually active than females. Kau (1991) identified similar results. According to Karigu and Zabin (1993), males who associated with sexually active peers were seven times more likely to become sexually active themselves and females were three times more likely than those whose peers were not sexually active. Residing in a rural area, having a weak religious commitment, having positive attitude towards premarital sex, having an unstable family background, attending a boarding school for males and having reached puberty early were other factors which were associated with early sexual activity in this study.

A similar study was conducted by the Malawi AIDS Secretariat (1994). In the Lilongwe district, 12 discussion groups were held involving girls, boys, teachers,

parents, church leaders, and sex counsellors (*anankungwi*). The aim was to identify ways of delaying the first sexual encounter for girls. It was found that all of the participating girls, aged 10-16 years, were already sexually active. Reasons for teenage sexual activity were sexual desire, poverty, peer pressure, easy money and cannot 'say no'. Despite young boys confessing to having committed rape, parents denied the existence of such an act. Parents indicated it is taboo to discuss sexual issues with their children, especially between fathers and daughters. Mothers acknowledged that a lowering of the age at which puberty occurs encourages girls to start sexual encounters early and that an early initiation makes them feel they are ready for sex. Parents, teachers, sex counsellors and Christian leaders believed that girls should be informed about reproductive health at the age of 6-7 years while Moslem leaders believed the initiation ceremonies should be delayed until the adolescent is 16 years old.

The National Welfare Council of Malawi (1997) interviewed 298 participants ranging 15-49 years old to assess their reproductive health knowledge. Only 32.2% of the participants felt reproductive needs of adolescents in Malawi were being adequately addressed while 8.8% wanted adolescents to be educated on the dangers of contacting STDs and HIV/AIDS. Six percent wanted family life education and HIV/AIDS to be included in school curriculum. Although lack of sexual education has been regarded as contributing to high levels of teenage sexual activity (Chiluzi 1997; Munlo et al., 1995), research that targets youth and teenage perceptions would be useful.

Adolescent's Knowledge about Sexual Issues

Knowledge of sexual issues is an important predictor of safer sexual behaviour. In 1991, Tucker surveyed 250 African-American males aged 12 years and above to identify their sexual life and contraceptive usage. The results showed that the amount of responsible sexual information received was a significant predictor of one's sexual

activity and delaying the age at first sexual encounter. The amount of responsible sexual information was also a significant predictor of the regularity of contraceptive use. Baumeister, Flores and Marin (1995) who studied Latina adolescents found results similar to Tucker's. The sample involved 40 never pregnant and 43 pregnant or parenting adolescents aged between 13 and 19. Those who indicated having received a lot of information from their parents were less likely to be pregnant.

The amount and quality of sexual information that adolescents receive varies, depending on the providers. Kunene (1995) studied 210 (110 girls and 100 boys) black South African adolescents aged 12-19 years. A questionnaire was used to measure their knowledge of human sexuality and sources of the information. The researcher reported that 50% of the participants had adequate information about the structure and function of reproductive organs pertaining to both sex groups. Early signs of pregnancy were also well known among the respondents. However, 88.5% of the participants felt they needed greater sexual health education prior to puberty in order to prepare and protect themselves from unplanned pregnancies. Respondents indicated that boys required as much education as girls to allow mutual co-operation in making responsible sexual decisions.

In Chicago, Reis and Herz (1987) surveyed 442 black, ninth grade inner city students (mean age of 13.2 years) to identify their knowledge of human reproduction. It was found that boys were more knowledgeable on sexual issues than girls. Ninety two percent of the girls and 33% of boys responded that they or their partner were responsible for use of birth control methods. In addition, boys were more willing to have sexual intercourse while girls were less willing.

Kontula, Rimpela, and Ojanlatva (1992) used a questionnaire to study 5289 Finish adolescents aged 13, 15 and 17 years. Findings showed that of the three age groups, the 15 and 17 year olds had satisfactory levels of sexual knowledge except for

the 13 year olds. About one third of the sexually active respondents did not use birth control although 60% used condoms. This indicates that adequate knowledge did not influence the participant's safe sexual practices. In 1995, Lear tested the contraceptive knowledge of 159 undergraduates of the University of California, in United States. The participant's ages were not specified. It was found that the participants were most knowledgeable of oral contraceptives, use of condoms as well as HIV transmission. However, their knowledge of other devices such as caps, intra-uterine device (IUD), spermicides, and gel was poor.

Of 2,000 Bophuthatswana adolescents aged 13-18 years, 78% were sexually active yet only 24.5% of these used condoms or other forms of contraception (Kau, 1991). Kau identified ignorance about use and effects of condom/contraception among the participants. The participants associated a girl being pregnant with ill-luck or stupidity. This indicates that lack of knowledge influenced non-use of contraception measures. A majority of the participants (62.5%) felt they were ignorant about contraception because their parents never discussed it with the children. The participants expressed a need for sex education in schools with parental involvement.

A study by Malawi Aids Secretariat (1994) revealed that parents, community and church leaders believed adolescents know about sexual issues but contracted sexually transmissible diseases or fell pregnant because they were not disciplined. Despite such beliefs, not much is known about how much sexual information Malawian adolescents have and the effect it has on their sexual practices. This was supported by the findings of a study undertaken by the University of Malawi Students Alliance For Rural Youth In Development (SARYD) (1997), where 1,956 adolescents completed a questionnaire, of whom 51% were female. The participants identified teenage pregnancy as a major Malawian problem. It was found that a desire in young girls to exhibit love was one of the main reasons why girls became pregnant because they did

not know how to 'say no'. Such beliefs influence pregnancy to be a girl's responsibility. Similar results were found by Jadack et al. (1995). Apart from attempting to exhibit love, SARYD (1997) also identified lack of knowledge as being another major contributing factor to teenage sexual activity. This was supported by Munlo et al. (1995) who also conducted a study of teenage pregnancy in a Malawian setting. A common theme identified among the researchers was a need for further study that can contribute to measures of educating Malawian adolescents about sexual activity.

Safe Sexual Practices.

Apart from abstinence, use of condoms and masturbation are other forms of safe sex practices. This section reviews some studies concerning condom use and masturbation among adolescents. Shaalma, Kok and Peters (1993) studied the determinants of consistent condom use among 1018 pupils of Dutch secondary schools aged 12-19 years. The participants indicated that use of condoms is sensible and necessary but not always pleasant. Those with greater sexual experience were more likely to indicate condom use as being less pleasant, expensive and an annoying interruption. Almost all the participants indicated they would use and negotiate condom use because of AIDS. Those without sexual experience were most likely to perceive difficulties in purchasing and using condoms, than those with experience. Girls were more likely than boys to expect difficulties in purchasing and possessing condoms. Boys expressed greater difficulty communicating and negotiating the use of condoms than girls. Experienced participants indicated difficulty in maintaining condom use, especially with a well-known partner. Attitudes, social norms and efficacy expectations were considered useful in promoting consistent condom use among participants. Wilson and Lavelle (1992) who had studied 563 Zimbabwean adolescents, of whom 343 were males and 220 females identified similar results. In the study, the males had a mean age

of 18.5 years and 17.7 years for females. The participants completed a questionnaire and it was found that 57% of males and 16.7% females were sexually active (i.e. having sexual intercourse). Amongst the sexually active, 68.2% of males and 75% of females reported having used a condom but more females felt they would be embarrassed to purchase, carry and discuss condom use with a sexual partner. They were more willing to have sex without a condom than to upset their sexual partners by insisting on condom use.

Jemott and Jemott (1992) used an AIDS prevention intervention to increase the intention to use condoms among 109 sexually active unmarried inner-city black American female adolescents whose ages were not specified but who had completed a mean number of 9.7 years formal schooling. Basing the study on Social Cognitive Theory, the researchers found that changes in AIDS knowledge were unrelated to changes in 'intention' to use condoms. The researchers concluded that knowledge is not sufficient to change risky behaviour. Those who believed that condoms do not interfere with sexual pleasure, believed their partners would approve condom use, and had a personal motivation towards using condoms, had increased intentions to use condoms. Sexual partners had the major influence on use or non-use of condoms.

Masturbation is considered to be a common human sexual behaviour which remains the least studied and consequently least understood, least acknowledged and most guilt ridden form of sexual behaviour (Lidster & Horsburgh, 1994). Lidster and Horsburgh also contend that masturbation remained private and largely a taboo phenomenon until the latter half of the 20th century. However, the authors regard masturbation as a prevalent behaviour practised by many normal men and women. The authors also contend that masturbation may be of great benefit in adolescence, when trying to identify their sexual self. This is because it allows the adolescents to discover

their sexual-self privately and without risking the acquisition of STD and unwanted pregnancy.

In Malawi, as well as in other African countries, little is known about masturbation practices. This is because it is taboo and consequently not talked about. No published research on masturbation was identified in African countries. A few studies were identified in developed countries. Guang (1997) studied 445 senior high school students from Weifang City, China. It was identified that 18% of boys practised masturbation on average 3.5 times a month and 2% of girls, twice a month. Schuster, Bell and Kanouse (1996) who administered an anonymous questionnaire to 202 American 9-12th grade students identified similar results. The purpose of the study was to determine whether high school students (approximately 12-18 years of age) who identified as virgins, engaged in sexual practices that could transmit disease. Findings showed that 47% of the participants were virgins (42% males and 53% females). Out of these, 29% males and 31% females reported having engaged in heterosexual masturbation. Feldman et al., (1997) identified that of the 605 Canadian students in 9-12th grade (approximately 12-18 years of age), 19% of those who identified themselves as virgins engaged in masturbation. Similarly, Hsu, Liu and Lin (1997) used a questionnaire to investigate sexual knowledge, attitude and behaviour of 1091 5th and 6th grade Ping-Tung students in China whose ages ranged from 12-18 years. It was found that 17.8% of the students had masturbation experiences of which 59.3% had feelings of fear and guilt. Puberty was reached at a mean age of 13.56 years while participants' first sexual encounter happened at a mean age of 15.22 years. Sexual magazines or movies were considered a major source of sexual information for 61% of the participants. Most of the studies did not specify whether masturbation was solo or heterosexual, however, in the case of heterosexual masturbation, communication and sexual negotiations are still required.

Sexual Communication and Negotiation

Communicating sexual needs enables partners to negotiate sexual activity. However, Sawyer et al. (1993) identified a lack of discussion before sexual intercourse. In their study, 27,000 USA College undergraduates with a mean age of 18.5 years completed an anonymous questionnaire regarding their ability to communicate sexual issues. The participants mainly believed that talking about sex destroyed romance. They believed that non-verbal messages are more important than verbal messages. Forty six percent of women and 27% of men believed they could determine the other persons' sexual intentions when they first met. Sixty one percent of the females believed they did not provide misleading sexual information that could lead to rape, where as 67% males believed that females gave sexually misleading messages, which led to rape. According to the study, this makes non-verbal communication an unreliable method to determine sexual intentions.

Lock, Ferguson and Wise (1998) used grounded theory to study how males and females in late adolescence communicate with their sexual partners about risky sexual behaviours. Eighteen women and 15 men aged between 18-20 years were interviewed in a South-eastern university of the United States. Building trust was identified as the core variable for both men and women in the communication of sexual behaviours. Participants trusted that their partners were telling the truth about number of previous sexual partners, STDs and HIV. Women usually initiated safe sex talk but men were willing to discuss it once the conversation was initiated. Previous sexual experiences and talking to friends about sexual issues made it easier to discuss sexual risk behaviours with their partner. However, trust only led to talking about safe sex but not necessarily safe sex practises.

Similar results were identified by Diclemente (1991) who had studied predictors of consistent condom use during sexual intercourse among 112 sexually active

adolescents from the United States aged 18 years and below. A questionnaire was used to obtain data and the findings showed that the ability to communicate with a sexual partner about AIDS influenced condom use. Girls felt more comfortable than boys about asking their partner about an HIV test while boys felt more comfortable buying condoms than girls. Their frequency of condom use was low and 35% of the participants had never used condoms yet 88% reported three or more sexual partners in their life with 74% within the year prior to participation in the study.

Jadack et al. (1995) found that from a sample of 272 United States adolescents aged from 18 years who participated in the study, 50.6% females and 48.2% males did not use condoms during sexual activity because they assumed their partner was not infected with HIV. Of these, 13% women and 11% men did not feel comfortable asking their partner about their sexual history. These results suggest that a majority of the participants were comfortable asking their partners about sexual history. Wilson and Lavelle (1992) identified that of the 563 Zimbabwean adolescents with a mean age of 18.5 years for males and 17.69 years for females, 70% had discussed AIDS with a schoolteacher or a friend while 60% had discussed AIDS with a sexual partner. Nearly 30% of females and 20% of males stated that they would be embarrassed to discuss condom use with a sexual partner while 50% females and 40% males would be embarrassed to carry condoms least people discovered they had them.

In another study aimed at exploring sexual communication, 159 undergraduate adolescents (ages were not specified) from the University of California completed a questionnaire (Lear, 1995). Lear found that a major influence in safe sexual practices was whether or not friends discussed safe sex. Sexual discussions among girls were more explicit than men, and women monitored their friend's behaviour more than men. Negotiating safer sexual practices required assertiveness and constant effort. Practising safer sex involved sexual negotiations and open communication about sexual desires.

Participants commented that negotiating sex basically depended on construction of risk and trust. Participants also felt that safe sex is empowering as it forced them to communicate more openly, approach sex creatively and be more responsible for their behaviour. It was identified that the American culture expected men to initiate a first sexual encounter while women decided whether to accept or not and to use contraception or not. Early sexual relationships involved less spoken communication, with increased non-verbal communication. Women involved in the study, expressed embarrassment about buying condoms, carrying them and asking a partner to use them.

Discussing sexual issues enhances self-esteem which promotes abstinence (Polivka, 1996) and the incidence of practising safe sex. In Malawi, as well as many other developing countries, little research has been conducted regarding the incidence of adolescents discussing and negotiating sexual issues.

Sources of Sexual Information for Adolescence

Adolescents obtain information about sexual activity from different sources. Ideally, they will obtain sexual information from their parents. Kau (1995) studied Bophuthatwaniana male adolescents' sources of sexual information. Of the 200 participants aged 13–18 years who completed the questionnaire, 62.5% reported that their parents never discussed sexual issues with them and 23.5% stated that even when directly approached, their parents would not discuss sexual issues with them. Kunene (1995) found similar results. Seventy-seven percent of girls and 64% boys of the black South Africans who completed a questionnaire wished their parents would discuss sexual issues with them. They said parents would not discuss sexual issues with them because it was a taboo for parents to talk about sexual issues with their children. Although the adolescents would like to obtain sexual information from their parents, their parents were unwilling to fulfil this role. In Malawi, the study by SARYD (1997)

found that more males than female adolescents believed their parents would be embarrassed to discuss issues of teenage pregnancy with them. Despite this, 70% believed it was their parents' responsibility to teach them about teenage pregnancy. This could signify that adolescents would prefer to be taught sexual issues by their parents, regardless of the existing taboos.

Other studies on sources of sexual information have been undertaken largely in developed countries. In an American study by Tucker (1991), a questionnaire was used to study 250 males aged 12 years and above, mothers were identified as the main sources of information on sex and birth control for male adolescents, young adults and middle adults. Fathers and male friends were considered a secondary source. In a study conducted by Baumeister et al. (1995), participants who reported receiving more information from their parents were less likely to suffer unwanted pregnancy. Baumeister et al. studied 40 never pregnant and 43 parenting Latina adolescents aged between 13 and 19 years. The findings stated that the participants who obtained more sexual information from their parents were less likely to experience unwanted pregnancy, supports the idea that parents are seen as creditable sources of sexual information for adolescents.

Despite this, some parents acknowledge embarrassment whilst discussing sexual issues with their adolescents, especially with children of the opposite sex. This was the finding of Dilorio et al. (1996) who used a discussion group to explore the role of 29 African American mothers in educating their adolescents about sexual issues. The mothers accepted the role of sex educators and centred their discussion on decision making. However, the mothers suggested the discussion be initiated at 8 or 9 years of age. They also observed that boys were not as open as girls in discussing sexual issues.

In qualitative study by the Malawian AIDS secretariat (1994), parents believed it was the role of grandparents and sex educators (*anankungwi*) to advise youth on sexual

matters. Parents felt ashamed to talk of sexual issues with their children and thought such discussions could lead into loose sexual behaviours. However, some parents expressed a willingness to take up the task of educating their children but felt they could comfortably discuss sexual issues with their children only if the discussions are initiated with seven to nine year old children.

Even though parents are suggested to be an ideal, primary source of sexual information for adolescents, some studies have ranked peers as the most frequently used source. Ndolvu and Sihlangu (1992) used a questionnaire to study sources of information regarding HIV/AIDS among 478 Zimbabwian, co-educational high school students in forms one to six. The participant's ages were not specified but would be approximately 12-19 years of age. Findings showed that girls considered classmates and radio as primary sources while boys considered newspapers and magazines. In boarding schools, classmates were considered the first source of information, followed by television, magazines, and booklets. Teachers, parents, nurses and other relatives were considered least informative sources, while doctors were considered a good source for future referral as opposed to parents, church and youth clubs.

Li and Davey (1996) used a questionnaire to examine how frequently 237 randomly selected Greek University students of Western Illinois were exposed to pornography. The mean age of the sample was 20.3 years. Findings indicated that 50% boys and 37% girls considered pornography as having contributed to their knowledge of some sexual topics. According to the authors, more boys read pornographic material because of the cultural stereotype that males are more interested in sex issues than females. However, peers were ranked the number one source of information followed by parents, non-pornographic material, media, teachers, pornographic media then church. It was not indicated whether these participants lived at home or at school

because if they lived at school, then they are more likely to use peers as a source of sexual information, supporting the finding of Ndolvu and Sihlangu (1992).

Thornburg (1981) administered a questionnaire to 1152 midwestern high school students in order to identify their sources of sexual information. Their ages were not specified. Peers were the first source cited by 31% of the participants, followed by literature, mother, school, experience, father, physician, then ministers. Females were more dependent on their mother (22%) for sexual information as opposed to 6.9% of males. Mothers provided virtually all sex information from within the home with her primary areas of contribution being about menstruation and conception. Most of the sexual information (51.4%) was learnt at 12-13 years of age while 30.7% was learnt at 9-11years of age. Sawyer, Desmond and Joseph (1996) also cited peers as the major sources of sexual information with 87% of the 124 deaf and 67% of the 181 hearing university of Maryland students in America, aged 18 and above. Workshops, posters, physicians, newspapers, magazines and television followed friends as a source of information for these participants.

Munodafa, Marty, and Gwede (1995) conducted a quasi-experimental study with 285 Zimbabwean high school students of forms 2 and 3 which is equivalent to grades 9 and 10 respectively in Australian education system. Their ages were not specified but can be approximated to be 12-18 years of age. Seventy percent of the participants were satisfied with information they received from nursing students and considered nursing students as a good source of sexual information. Polivka (1996) interviewed 116 adolescents from rural Ohio to identify their sources of sexual information. It was found that sex education was offered both inside and outside of school. Outside school, sex education also occurred via newsletters, clinics and adolescent conferences. Public health nurses planned, collaborated and ensured a comprehensive implementation of the inside and outside school sex education programme. In Malawi, contact between

adolescents and student nurses or other health workers is minimal, as there are no school health or adolescent health services. Likewise, sex education is not taught in Malawian schools.

Mellanby, Phelps, Crichton, and Tripp (1996) found that British teachers were frequently a source of sexual information for adolescents. This study was conducted to evaluate a school sex education program. A sample of 3314 year eleven British students with a mean age of 16.0 years completed a questionnaire. About 70% reported that the education had included 'some' or 'a lot' of information on sexual intercourse, contraception and STDs. Forty five percent indicated that the main source of information regarding STD and contraceptive information was the school. Similarly, Baumeister et al. (1995) found that adolescents reported to have received little information from their parents on birth control. Magazines and movies were considered a major source of sexual information among 61% of the 1091 Chinese high school students that Hsu, Liu and Lin (1997) studied. However, the participants identified a need for sex education in schools.

Studies on adolescent sources of sexual information indicate that for adolescents to obtain adequate information, different sources of information are required. From a study conducted by Malawi AIDS Secretariat (1994) and a paper by Banda, Banda, Namasasu, Phoya and Sabakati (1997), it appears that whilst parents believed adolescents obtained adequate sexual information from peers, biology lessons, radio and films, no studies examined an adolescent's perception of sources of information. This indicates that the type of sexual information and the major sources of information for the adolescents have not been clearly researched or documented in Malawi.

Summary of Literature Review

The literature search has shown that in Malawi, like many other countries, adolescents are sexually active from a young age. The adolescents are interested in knowing more about sexual activity hence they explored and utilised different sources of sexual information. The main aim of sex education programs, be it at home or school, is to help adolescents communicate effectively and adequately negotiate sexuality issues. The more accurate information adolescents received regarding sexual issues, the lower the number of teenage pregnancies reported. Despite the importance of the issue, studies on adolescents' communication of sexual issues remain limited. The few studies conducted have mainly been in developed countries. For developing countries, especially Malawi, it appears no studies have been conducted on this topic, which makes the current study an important starting point.

Theoretical Framework

Bandura (1977) developed social cognitive theory (SCT), also known as social learning theory, (Figure 2). The theory is derived from stimulus response theory (SR) and cognitive theory. SR originates from a combination of classical conditioning and instrumental conditioning theories (Rosenstock, Strecher & Becker, 1988). SCT is mainly based on the belief that expectancies and incentives determine behaviour. The expectations that can influence behaviour can either be environmental cues, consequences of one's action and competency to perform the required behaviour which can produce the specific outcome (Egger et al., 1990; Rosenstock et al., 1988). Most human behaviour is determined by many interacting factors in which case, human beings are contributors to, rather than determinants of, what happens to them (Bandura, 1986). Bandura contends that cognitive representation, experiential and physical factors interact to determine behaviour.

Bandura (1977, 1986 & 1997) considers an outcome as the consequences of an act, not the act itself. An outcome arises from an act. Failure to complete the intended act then, cannot produce the outcome of the act because the act was not completed. The theory's key components are perceived self-efficacy and outcome expectations. Perceived self-efficacy is the person's belief that one can successfully perform the required behaviour to produce a desired outcome (Bandura, 1986; Bandura, 1997; Hale & Trumbetta, 1996; Jemmott & Jemmott, 1992). Perceived self-efficacy acts upon other determinants of behaviour hence Bandura's assertion that it occupies a central role in SCT (1997). It is concerned with what the individual believes can be performed with the abilities one has in a variety of circumstances as opposed to skills that one has (Bandura 1997). Perceived self-efficacy is then considered as a significant determinant of performance that operates partially independent of underlying skills (Bandura, 1986).

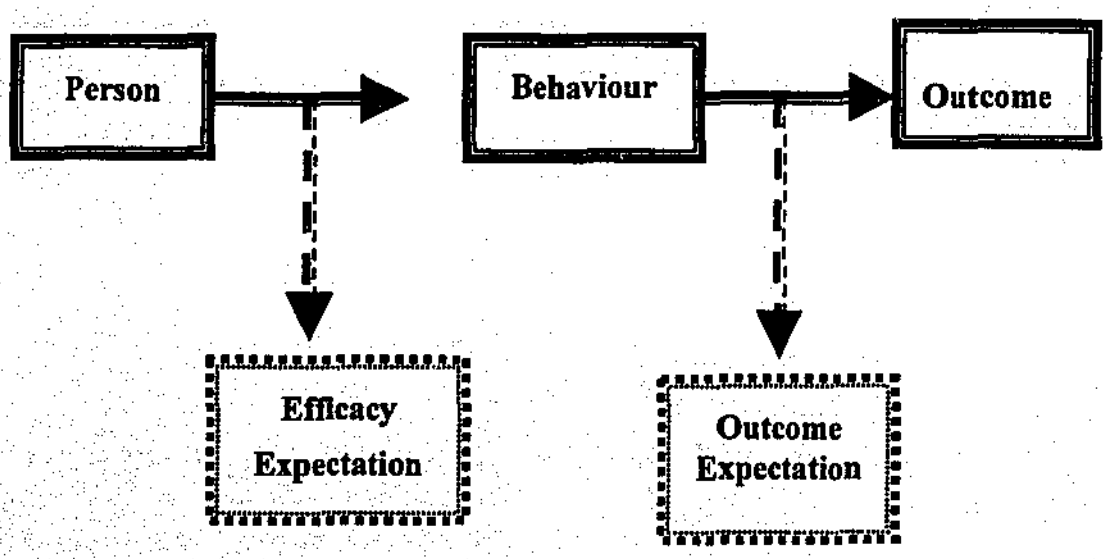

Figure 2: Social Cognitive Theory. Source: Bandura, A. (1977) p. 79

The other key component of SCT is outcome expectations. Outcome expectations are considered to be judgment of the likely consequences that a specified behaviour will produce (Bandura, 1986, 1997). Outcome expectations can take two forms, positive (benefits) or negative (barriers). Perceived benefits include pleasant

sensory experiences, physical pleasure, social recognition, status, power and monetary compensations (Bandura, 1997). On the other hand, Bandura contends that perceived barriers include pain, uncomfortable sensory experiences and physical discomforts, disapproval, social rejection, imposed penalties and deprivation of privileges. An individual's decision to perform a specific behaviour can then be determined by its perceived benefits against the perceived barriers.

A relationship exists between knowledge and behaviour. Self-efficacy affects a person's consideration to change a behaviour, the extent of the change and whether or not to maintain the change. SCT has been used to predict behaviour change in different aspects of health, however Hale and Trumbetta (1996) contend that SCT is especially relevant to sexual risk prevention. The theory has been used to study different aspects of sexual health among people of different age groups, in particular adolescents (Basen, 1994; Borus, Mahler & Rasario, 1995; Jemmott & Jemmott, 1992; Mathews, Everett, Binedell & Steinberg, 1995; Schaalma, Kok & Peter, 1993). All of these researchers studied the predictors of sexual behaviours of their subjects. Their findings indicated that SCT predicted the sexual behaviour of their participants hence they recommended use of the SCT to predict adolescent sexual behaviour.

In the current study, concepts of the model are described in the following manner. 'Person' is the adolescent aged between 12-18 years. 'Behaviour' is the ability to discuss sexual activity and the 'outcome' is the decrease in STDs and teenage pregnancy rates. For the adolescent to discuss sexual activity, several factors are required. These factors affect self-efficacy. The study was aimed at identifying these factors.

Chapter Three

Methods of Investigation

This chapter describes the methods of investigation used in the current study. Firstly, the research design will be outlined, followed by a description of the sample population and the instrument used for the research, the questionnaire. Secondly, the procedure for data collection will be detailed. Lastly, a discussion of ethical considerations will be presented.

Design

The purpose of the study was to describe and explore the factors that adolescents identify as affecting their ability to discuss sexual issues. The research design was descriptive. Descriptive studies aim at identifying relevant variables in a specific situation through the systematic collection of data under adequate control and use of statistical measures to analyse the data (Polit & Hungler, 1995; Wilson, 1989). Descriptive studies have been considered an essential phase in the development of nursing knowledge because they form the basis for future research by generating questions and hypotheses for further experimental studies (Cormack, 1984). The focus of descriptive studies is on the situation as it is, that is, conditions that exist, practices that prevail, beliefs, attitudes and ongoing processes (Cormack, 1984). In the current study, the participants' demographic profile was investigated, followed by their sources of sexual information, sexual issues that the participants consider important, then their comfort discussing sexual issues with different community members. A descriptive design was the most appropriate format to study these factors as the current situation was unknown.

Setting

The study was conducted in three co-educational secondary schools in Lilongwe and Mchinji districts of Malawi. Lilongwe is the capital city of Malawi. School A provides non-boarding, co-educational secondary school facilities to almost 467 students in the city. Students who study here are selected from primary schools within the city. It has four forms, form one (which is equivalent to year nine Australian level) to form four (equivalent to year 12 level). It is a government school, which requires lower school fees as compared to private schools. Education for girls is free and the school has a slightly higher proportion of male students.

School B provides boarding co-educational secondary school facilities to students from Lilongwe district (from Lilongwe urban and rural). It is situated about 15 kilometers to the west of Lilongwe City. It has four forms, form one (year nine) to form four (year 12). It is a government school, and like School A, girls receive free education. The school has about 320 students of which almost 75% are boys.

School C provides boarding co-educational secondary school facilities to students from Mchinji district (rural as well as urban). The district is situated about 150 kilometers from Lilongwe City and borders Malawi to Zambia (Figure 1). The school has about 420 students of which slightly more than half are boys. It is also a government school, providing free education for girls which is seen as an incentive for them to remain in school.

Sample

The study population included adolescents aged 12-18 years from the three co-educational secondary schools. The three schools were chosen through cluster sampling. Polit and Hungler (1997) define cluster sampling as "a form of multistage sampling in which large groupings (clusters) are selected first with successive

subsampling of smaller units" (p. 453). Even though cluster sampling can have more errors than simple random sampling, cluster sampling is considered more economical and practical, especially if the population is large and widely dispersed such as in the current study (Burns & Grove, 1995; Polit & Hungler, 1995). In this study, names of districts and schools were drawn blindly from a box. The actual procedure is explained further under recruitment.

A total of 150 adolescents of both genders were invited to participate in the study, 50 participants from each school. One hundred and forty-nine participants returned their questionnaires representing a 99.33% return rate. Ideally, participants from all four forms were to be included in the study. Due to delays in announcing Primary School Leaving Certificate and Junior Certificate results, the schools did not have form one (year 9) and form three (year 11) students present at the time of the research. Only form two (year 10) and form four (year 12) students participated in the study.

More than 12 additional students approached the researcher requesting to be included in the study. They believed their counterparts were advantaged having been included in the study. Some of these un-recruited students insisted on going through the questionnaire or taking it for personal use. The students were permitted to go through the questionnaire and reassured that a completed report would be made accessible to them through their institutions. The students' interests in the study can be contributed to the importance of the issue as it appears no studies have focused on adolescent sexual activity in Malawi.

Instrument

Data was collected using a questionnaire (Appendix A). Questionnaires are primarily used in descriptive studies, which are designed to gather a broad spectrum of information from the subjects. As opposed to interviews, questionnaires are presented in a consistent manner providing less opportunity for bias, while they also facilitate analysis (Polit & Hungler1997). In the current study, the questionnaire was aimed at gathering information about the adolescent's ability to discuss sexual activity. A questionnaire was used in the current study as it achieves confidentiality and is less confronting for sexual issues as opposed to using face to face interviews. The questionnaire was constructed primarily through content adapted from instruments developed by McKelvey, Franzep, Wedd, Baldassar and Robinson (1997) and Tucker (1991). The contents were primarily concerning demographic factors, sources of sexual information and sexual issues that adolescents consider important. Personal experience of the researcher, having worked as a nurse and midwife in Malawi, also contributed to the questionnaire adaptation. The questionnaire was in English which is the second language of Malawi. It was beyond the scope and finances of this study to test a translated instrument. As well, school students are encouraged to use English.

The questionnaire consisted of close-ended questions. Close-ended questions are used when there is a fixed number of alternative responses presented to the participants (Wood & Haber, 1998). The questionnaire comprised four sections and opened with demographic data. The demographic section consisted of 16 questions, which were aimed at investigating the participant's social background and key characteristics. This section consisted of close-ended questions requesting the participants tick a category that described them most accurately. Considering the

sensitive nature of the study, the section also enabled the participants to relax before attempting the main research questions.

The main study questions started with a section on sources of sexual information that the participants employed whilst growing up. The section comprised 20 possible sources, of which the participants were advised to select only five main sources of information that they accessed. Participants were advised to first go through the list before making selections, to familiarize themselves with the different choices represented. A space was provided to allow for any other possible sources that the participants might have used but were not included on the list.

The next section explored the importance participants placed on a range of sexual issues. Fourteen sexual issues were presented. The questioning for this section incorporated the Likert scale, which is the most commonly used scaling system (Burns & Grove, 1995). A Likert scale consists of several declarative statements that express a participant's viewpoint or response to a topic expressed by the statement (Polit & Hungler, 1997). A five-point evaluation scale used in the study and the value ranged from 1 as most negative response to the value of 5 as the most positive response (Burns & Grove, 1995). A neutral value was provided for the participants who were not sure of how to rank the importance of the statements.

Sexual activity was investigated by asking whether the participant engaged in sexual intercourse or not. This was followed by a space in which those who had indicated being sexually active were to specify the age sexual intercourse was initiated, followed by the number of sexual partners they had over a period of 12 months. The 12-month period was considered adequate for an individual to accurately recall the number of sexual partners.

Comfort in discussing sexual issues was the last section of the questionnaire. The participants were provided a list of 16 community members. From this, the

participants were asked to rate how comfortably they could discuss a sexual issue using a five-point Likert scaling with each of the community members (1 = least comfortable to 5 = most comfortable). Following this was a section that assessed how comfortably the participants could discuss a sexual issue with a classmate of the same sex and the opposite sex. The participants were provided with a list of 11 possible sexual issues, and were asked to rate on a five-point Likert scale how comfortably they could discuss a sexual issue with a classmate.

The participants were asked to imagine their intention to have sexual intercourse. They were then asked to rate on a five point Likert scale whether they could comfortably buy a condom. The same scale was utilised to determine with which specified community members the participants could discuss their intention to have sexual intercourse. The questionnaire addressed various situations in which the participants could discuss sexual issues. Statements regarding different situations were presented to the participants with true and false choices. The participants were asked to indicate true or false depending on whether they agreed or disagreed with the statement. The mode of communication that participants felt most comfortable using to discuss sexual issues was investigated. Given a list of three options, the participants were asked to select the primary mode of communication they used.

During the questionnaire development, key words were aimed at the comprehension level of the respondents. To clarify key words, they were either represented in bold, italics, underlined or illustrated through examples. As English is a second language in Malawi, the purpose of this was to simplify the questionnaire for the participants. Cultural background was also taken into consideration by including examples relevant to the Malawian culture. It was estimated that it would take approximately 30 minutes to complete the questionnaire.

Validity and Reliability of the Instrument.

The questionnaire was modeled on a similar format developed by McKelvey, et al. (1997) and Tucker (1991). Although their instruments had been tested for validity and reliability, the instrument developed for the current study had to be re-tested in the Malawian setting. This was done to ensure the instrument satisfied the intent of the researcher and was consistent in its measure.

Content Validity.

The issue of concern under content validity is "whether the measurement tool and the items it contains are representative of the content domain that the researcher intends to investigate" (Wood & Haber, 1998, p. 331). Wood and Haber suggest that in order to ensure content validity for the instrument, the instrument should be submitted to a panel of judges considered experts in the field of study. The adapted questionnaire was submitted to a panel of Malawians whose work involves adolescent health and well being. These experts included a youth worker at the Ministry of Youth, Sports and Culture; Safe Motherhood Project Coordinator in the Ministry of Health and Population; Chief obstetrician and gynecologist, at Queen Elizabeth Central Hospital; Head of Maternal and Child Health department, Kamuzu College of Nursing; a sexual health consultant, STAFH project; and a secondary school curriculum development coordinator, Domasi Institute of Education. An introduction letter was sent to each panel expert (Appendix B).

The experts were asked to assess the relevance of the questions in the instrument by indicating the following three choices against each question: Not relevant, possibly delete (value = 1); relevant but needs some alterations (value = 2) and very relevant (value = 3). Any possible suggestions and additions were taken into consideration. The feedback from the experts showed that almost 85% of the

questions were considered to be very relevant. The rest required some alterations. The major alterations suggested by the panel members included asking the participants to specify their age, the age when puberty was reached as well as the age when they had their first sexual encounter. This was to aid in data analysis. The traditional sexual practice of 'fisi' (a man who breaks a girl's virginity after puberty) and viewing of farm animals' sexual life as a source of sexual information were considered vital to Malawian culture so these items were incorporated in the questionnaire. The curriculum development officer from the Institute of Education indicated the questions were at the appropriate level for Malawian secondary school students to understand.

Reliability.

Reliability is the measure used to assess the quality of the instrument as it measures the instrument's degree of consistency (Polit & Hungler, 1997). In the current study, the Cronbach's alpha was used as a measure of reliability of the adapted questionnaire. Cronbach coefficient alpha "measures the extent to which performance on any one item in an instrument indicates performance on any other item in that instrument" (Stromborg, 1988, p 6-7). This is considered appropriate where the predominant questions are composed of a Likert scale (Wood & Haber, 1998). The items that did not fit with the others were modified. The Cronbach's alpha for the section on sexual issues that the participants consider important was 0.72, that for discussing sexual issues with classmates and for discussing sexual issues with different community members was 0.70. A pilot study of the questionnaire before administering to the main research participants prevented the inclusion of ambiguous and unclear questions. This process of pilot testing the

questionnaire before administration to the main research participants also ensured that the instrument measured what it was intended to measure.

Procedure

This section outlines the procedure employed during the course of the study. It first outlines the clearance and permission process for the pilot study followed by data collection. Documents that were used will be presented in appendices.

Clearance

Prior to data collection, a proposal was submitted to the Faculty of Health and Human Sciences Higher Degrees Committee and the University Committee for the Conduct of Ethical Research (UCCER) of Edith Cowan University (Appendix B). When permission was granted, a letter was sent to the Research and Health Sciences Committee at the Ministry of Health and Population in Malawi in order to seek national clearance (Appendix B). A copy of the questionnaire accompanied this letter. Verbal permission was first awarded followed by written permission (Appendix B).

Pilot Study

A pilot study is a small-scale study that is conducted in preparation of the main study (Polit & Hungler, 1997). A pilot study was undertaken to test the questionnaire's feasibility, reliability and validity. Thirty adolescents, 17 females and 13 males from Chimwemwe private secondary school were used. Criterion for inclusion in the study was participants within the age group of 12-18 years. Initially the Headmaster was reluctant to allow the administration of a "sexual" questionnaire to a school of religious background (Roman Catholic). He regarded such issues as contradictory to their religious beliefs. Upon examination of the questionnaire, he considered it more educational than sexual, hence permission was granted.

The participants were provided with questionnaires and envelopes. They were allowed one week in which to return the questionnaire, and were provided with a non-financial incentive. One hundred percent of the participants returned the completed questionnaire in the sealed envelopes. The deputy headmaster and a teacher requested a copy of the questionnaire for personal use but were advised to wait until the study was completed.

The participants answered 85% of the research questions. Following the pilot study, the following amendments were made. Two participants indicated not having reached puberty in response to the question 'age when you: 1) If girl – started having monthly periods. If boy – development of deep voice and having wet dreams.' As a result, the question was split into a) those who have reached puberty, to specify age b) those who have not yet reached puberty. In reference to involvement in religious activities, some participants could not adequately respond to the provided categories of 'regularly', for example once a week, 'occasionally' and 'do not attend'. A fourth category of 'other, please specify' was added. Questions 12, 13 and 15, addressed

parents education and occupation. The category 'do not know' was incorporated to reflect the participants' knowledge.

The pilot study also indicated that a clearer explanation was required regarding the choice of the sources of sexual information. Although a majority ticked their chosen responses, only a small number managed to rank their choices. This may have indicated the difficulty participants experienced prioritizing their chosen responses.

The explanation regarding choices presented in questions (Q 17, 18, 21, 22 and 23) were put in brackets as the participants indicated that the explanations were confusing. In questions 22 and 23, the clause 'male/female friend', was emphasised by using bold type and an illustration 'e.g classmate' was included. This is because some participants appeared confused by the questions.

Recruitment of Participants in the Main Study and Data Collection.

A sampling frame was developed that included a list of all the ten districts in the central region of Malawi. To obtain a randomized sample, the districts were written on small pieces of paper. The individual pieces of paper were folded and put in a box. The box was shaken and the researcher picked two pieces without looking. The randomized sample resulted in two districts of Lilongwe and Mchinji being chosen. A randomized selection of schools from a list of co-educational schools in these districts was obtained from the Ministry of Education and Culture. The Ministry advised that institutional clearance should be obtained from the headmasters/headmistress, not from the Ministry. Two secondary schools (A and B) were randomly selected from Lilongwe district, while School C was selected from Mchinji district. The headmaster/mistress of each school was contacted by telephone to book an appointment. The headmasters were provided with the questionnaire and

a form requesting permission to conduct the study in their institution. All the headmasters gave verbal as well as written permission.

Having obtained institutional clearance, a list of potential participants who met the inclusion criteria, being within the age group of 12-18 years regardless of gender, was produced. From this list, participants were randomly selected by choosing every 9th student from School A, 6th from School B, and 8th from School C. A total of 50 participants were chosen. The participant's verbal then written consent was obtained. All the participants who were selected agreed to participate in the study and returned their signed consent forms. The participants were also asked to provide a name and address of their next of kin/guardian who could provide parental consent for them to participate in the study. Stamped and self-addressed envelopes were sent to the guardians via the schools. All the guardians returned the signed forms within two weeks of mailing.

Questionnaires and envelopes were distributed to the participants who were advised to complete them in person. The participants were allowed a period of one week in order to complete and return the questionnaire in the sealed envelopes. The researcher's contact number and that of a community health nurse were left with the headmaster/headmistress of the schools for contact incase a participant became emotionally distressed during the process of completing the questionnaire. The deposit boxes for questionnaires were marked according to school. The headmasters/headmistress of the schools were thanked for participating and the questionnaires were taken for data analysis.

Ethical Considerations

In order to ensure that the participants were protected, written permission was sought from Edith Cowan University UCCER (Appendix B) and from the

Ministry of Health, Malawi (Appendix B) before collecting the data for both the pilot and main studies. Approval was granted and the suggestions were taken into account (Appendix B). At the secondary schools, verbal and written permission was sought both of which were granted (Appendix B). The headmasters/headmistress of the schools were assured of anonymity of their students as only group data would be reported.

Participants were provided with as much information as possible about the study. They were informed that the study was for scholarly purposes. Participation in the study was voluntary and their decision to not participate in the study would not harm them in any way, nor influence their progress in school. They were allowed to ask questions pertaining to the study and these were answered honestly.

After agreeing to join in the study, participants and their parents/guardians were asked to sign a consent form (Appendices C). Parents/guardians provided consent because the participants in the study were minors (aged 18 years or younger). A community health nurse was available for counselling in case any participants become emotionally distressed while completing the questionnaire, however no participant was reported to have required such services.

The parents/guardians were informed about the method of data collection and that no harm was to be inflicted on the participants. It was also specified that the study was for scholarly purposes. It is believed that this would ensure self-determination of the participants to participate in the study. No names were used during data collection nor in the report of the study to ensure confidentiality and anonymity. Considering the study's sensitive nature, participants were allowed to complete the questionnaire in their own time in order to ensure privacy. Completed questionnaires were put in sealed envelopes then in a secure box to maintain

confidentiality. The questionnaires will be kept in a lockable drawer in the researcher's home for a period of five years before being destroyed by incineration.

Data Analysis

Data were analysed in order to summarize, organise, evaluate, interpret and numerically communicate the collected information (Polit & Haber, 1997). The Statistical Package for Social Sciences (SPSS for Windows, Release 7.5) was used to analyse the data. Before analysis, data was entered and recorded in the package, then categorised.

Frequency distributions for the demographic variables were generated. Frequency data gathered on sources of sexual information and sources of information by gender were presented graphically to aid communication of information.

Chi squares were performed to determine if there was a statistically significant association between education level of mother and sexual intercourse; education level of father and sexual intercourse; religion and sexual intercourse; age and sexual intercourse; and gender and sexual intercourse. Where expected values were less than five in each cell, variables were collapsed (Puri, 1996).

Means were calculated from the participant's comfort in discussing sexual issues with classmates and different community members and for sexual issues that the participants considered important as the data were presented on a Likert scale, therefore they could be treated as interval data (Streiner & Norman, 1995). ANOVAs were calculated to analyse if there was a statistically significant difference in comfort level between males talking to males, males talking to females, females talking to females, and females talking to males.

Chapter Four

Results

The purpose of this study was to explore and describe the factors that secondary school participants from co-educational schools identify as affecting their ability to discuss sexual activity. This chapter will outline the results. Demographics of the sample will be given which will be followed by the identified sources of sexual information, then the participant's level of comfort in discussing sexual issues will be outlined. Data will be considered as a whole not according to schools. Some data will be considered according to gender in order to obtain gender differences in perceiving different items. All the figures will be rounded off to the nearest decimal point.

Demographic Data

Gender, Age and Educational Level.

The participants comprised of slightly more females 51.7% (n = 77) than males 48.3% (n = 72). Their ages ranged from 14 to 19 years with a mean age of 17 (Standard Deviation (SD) = 1.1). Only one participant was aged 19. This participant may have turned 19 after selection of the participants had already been done. The participants educational levels comprised of two forms, form two and four. (Form Two is equivalent to Year Ten while form Four is equivalent to Year 12 in Australia). This is because Form One and Form Three students were on holiday. Of these participants, majority were in form 4 (96 participants) while 52 participants were in form 2. Of these schools, Bwaila was the only day secondary school while Namitete and Mchinji are boarding schools.

Number of Children in the Family.

A majority of the participants came from families of four to six children. The minority came from families of 10 children and above. The mean number of children was 5.6 (SD = 2.3). Details on family size are presented in Table 1.

Table 1

Number of Children in the Participant's Family

Number of children	Frequency (n)	Percentage (%)
1-3	32	21.5
4-6	63	42.3
7-9	45	30.2
10+	4	4.0
Missing	3	2.0
Total	149	100.0

Participant's Position in the Family.

A majority of the participants were first-born children (n = 38, 25.5%). Mean family position was 3.4 (SD = 2.3). Due to smaller numbers, participants who are sixth position or greater in a family were grouped together (Table 2).

Table 2:

Participants' Position in Family

Position	Frequency (n)	%
1	38	25.5
2	24	16.1
3	31	20.8
4	15	10.1
5	13	8.70.
6+*	28	18.8
Total	149	100

*Six plus means sixth position or above.

Where Participants Grew up.

Of the three areas, urban, small town and rural, findings indicated that more than half of the participants (79, 53%) grew up in the urban area, with the rest of the participants evenly distributed between rural areas and small towns (Table 3).

Table 3:

Area Participants Grew Up

Area	Frequency (n)	%
Urban	79	53.0
Rural	37	24.9
Small town	33	22.1
Total	149	100.0

Tribes of Participants.

The majority of the participants belonged to Chewa tribe (69, 46.3%) (Table 4). Some participants belonged to other tribes other than the ones provided. These tribes included: Tonga, Senga and Khonde.

Table 4

Tribal Background

Tribe	Frequency (n)	%
Chewa	69	46.3
Ngoni	27	18.1
Tumbuka	20	13.4
Yao	12	8.1
Lomwe	8	5.4
Other	13	8.7
Total	149	100

** Other: n = 5, Senga; n = 4, Tonga, n = 2, Khonde and n = 2, Sena.

Participant's Religion.

Most of the participants belonged to Christianity based religions. Only one participant indicated not belonging to any religion (Table 5).

Table 5

Religious Background

Religion	Frequency (n)	%
Presbyterian	67	45.0
Roman Catholic	48	32.2
Anglican	9	6.0
Muslim	5	3.4
Pentecost	4	2.7
Other*	16	10.8
Total	149	100

* Other meant: n = 8, Seventh Day Adventist; n = 3, Church of Christ; n = 3, Baptist, n = 1, African Presbyterian and n = 1, none.

Involvement in Church Activities.

Slightly more than three-quarters of the participants reported attending church regularly. Four participants (2.7%) reported not attending any church activity. Six participants (4%) did not attempt the question. Of those who responded, 15 participants reported attending church activities more frequently than once a week (Table 6).

Table 6

Participant's Involvement in Church Activities

Involvement	Frequency (n)	%
Regularly	113	75.8
Occasionally	11	7.4
Do not attend	4	2.7
Other	15	10.1
Missing	6	4.0
Total	149	100.0

** Other meant: n=2, daily; n=3, 4 times a week; n=6, 3 times a week; n=2, more than once a week; n=1, twice a month and n=1, when there is a chance.

Living Arrangements.

All participants lived with a family member. A majority lived with their family of origin (n = 101, 67.8%). The rest (n = 47, 32%) lived with a family member other than their father and mother. The family members included brothers, sisters, aunts, uncles and grandparents. One participant did not indicate a living arrangement.

Mostly, the participants live with married people (n = 116, 78%) usually their parents. Apart from living with married people, some participants lived with widowed

mothers (n = 14, 9.4%), divorced mothers (n = 10, 6.7%), divorced fathers or single mothers (n = 5, 3.3%). Two participants did not respond to the question.

Parental/guardian's Educational Status.

A majority of mothers (22.1%) had form three-four (Year 11-12) as their highest educational level while 41% fathers had tertiary education. Very small numbers indicated no formal education for both parents. For those not staying with their parents, form three-four was the most frequently recorded guardian's educational level, while the minority indicated primary school and form 1-2 (Year nine-ten) (Table 7). Twenty-five participants did not attempt the question.

Table 7

Parent's/guardian's Educational Level

Educational level	Mother	Father	Guardian
	n (%)	n (%)	n (%)
Std 1-5	21 (14.1)	7 (4.7)	0 (0.0)
Std 6-8	29 (19.5)	17 (11.4)	1 (0.7)
Form 1-2 (Year 9-10)	19 (12.8)	14 (9.4)	1 (0.7)
Form 3-4	33 (22.1)	29 (19.5)	14 (9.4)
Tertiary	29 (19.5)	61 (40.9)	8 (5.4)
Don't know	13 (8.7)	16 (10.7)	2 (1.3)
No formal education	5 (3.4)	3 (2.0)	0 (0.0)
Total	149 (100.0)	147 (98.6)	26 (17.5)

* Std = standard in primary school.

Occupation of the Person Participants Stay With.

A majority of the participants indicated 'professional' for occupation of the person with whom they live (this included teaching, nursing and other medical related professions). The second largest group was agricultural followed by administrators. Fifteen participants (10.1%) did not specify parent's/guardian's occupation (Table 8).

Table 8

Occupation of Parent/guardian

Occupation	Frequency	%
Professional	67	45.0
Agricultural	23	15.4
Administrative	18	11.7
Production and transportation	9	6.0
Sales worker	6	4.0
Service workers	6	4.0
Clerical and related work	2	1.3
Members not classified by occupation	2	1.3
Members of the armed force	1	0.7
Did not specify occupation	15	10.1
Total	149	100.0

Summary of Demographics

The demographic findings indicated that the sample had almost an even representation of females and males. The participants were likely to be in form four and to be either 17 or18 years of age. The majority lived with both their parents even though a percentage stayed with widowed or divorced mothers. The participants mainly came

from large families and were likely to be first-born children. Most of the parents do professional work such as teaching or medical care. A majority of the participants were brought up in the city as opposed to rural areas or small towns. The participants' religion was primarily Christian.

Puberty and Sexual Activity

Almost all the participants had reached puberty (146, participants) which represented 98% of the sample. The remainder (n= 3; 2%) did not indicate whether they had reached puberty or not. A majority of the participants had reached puberty at 15 years of age while, only one had reached puberty at 11 years of age (Table 9). Mean puberty age was 14.6 with a SD = 1.2.

From a total of 72 males, 56.9% (n = 41) indicated having had a sexual relationship (i.e. sexual intercourse) while 37.5% (n = 27) reported not having had a sexual relationship. Four males (5.6%) did not attempt the question. Out of the 77 females, 74% (n = 57) indicated not having had a sexual relationship while 22.1% (n = 17) reported having had a sexual relationship. Three female participants (3.9%) did not attempt the question. Ages when participants had their first sexual encounter ranged from 14-18 years with a mean age of 14.73 (SD = 2.5). Only one participant indicated having had his first sexual encounter at six years old but this was not explained further.

Table 9

Age at Puberty

Age at puberty	Frequency (n)	%
11	1	0.7
12	5	3.4
13	11	7.4
14	37	24.8
15	52	34.9
16	20	13.4
17	3	2.0
18	2	1.3
Missing	18	12.1
Total	149	100

Chi squares were calculated to find if there was a significant association between sexual intercourse and different demographic factors in order to identify the factors that influenced participant's sexual intercourse. There was no significant association between tribe, religion, and parental education with the participant's involvement in sexual intercourse (Table 10 & 11). There was, however, a significant association observed between gender and age with sexual intercourse. Boys were more likely to be sexually active than girls ($X^2 = 20.428$, df = 1, p = .000). Older participants were also more likely to be sexually active than younger participants ($X^2 = 13.423$, df = 5, p = .020). Cross-tabulation between sexual activity and other demographic factors such as tribe, religion, where participants grew up and family living arrangements did not have much influence in the participant's sexual activity.

Table 10

Gender by Sexual Intercourse

		Have you had sexual intercourse?		
Gender		No	Yes	Total
Male:	Count	27	41	68
	Expected Count	40.2	27.8	68.0
Female:	Count	57	17	74
	Expected Count	43.8	30.2	74.0
Total	Count	84	58	142
	Expected Count	84.0	58.0	142.0

Chi square = 20.428, df = 1, p = .000

Table 11

Age by Sexual Intercourse

		Have you had sexual intercourse?		
Age (years)		No	Yes	Total
14	Count	3	0	3
	Expected Count	1.8	1.2	3.0
15	Count	10	4	14
	Expected Count	8.3	5.7	14.0
16	Count	21	6	27
	Expected Count	15.9	11.1	27.0
17	Count	20	12	32
	Expected Count	18.9	13.1	32.0
18	Count	28	34	62
	Expected Count	36.6	25.4	62.0
19	Count	0	1	1
	Expected Count	.6	.4	1.0
Total	Count	82	57	139
	Expected Count	82.0	57.0	139.0

Chi square = 13.423, df = 5, p = .020

The number of sexual partners ranged from one to six with a mean number of sexual partners of 1.6 (SD= 1.3). The response rate to this question was 78% for males and 82% females. According to gender, 59.4% (n = 19) of boys indicated having had one sexual partner while 85.7% (n = 12) of girls had one sexual partner.

Sources of Sexual Information

Participants were provided with a list of 20 possible sources of sexual information, from which they were required to rank the five main sources they accessed whilst growing up. The highest ranked source of information was books (n = 92, 62%) followed by friend of same sex (n = 91, 61%). A minority, (n = 10, 7%) considered counsellors as sources of sexual information. In order of priority, the sources were: books, friends of same sex, movies, radio, mother; magazines, church members, health workers, grandmother, sister and boy/girl friend, grandfather, drama and animals, father and newspaper, brother, friend of opposite sex then counsellor (Figure 3).

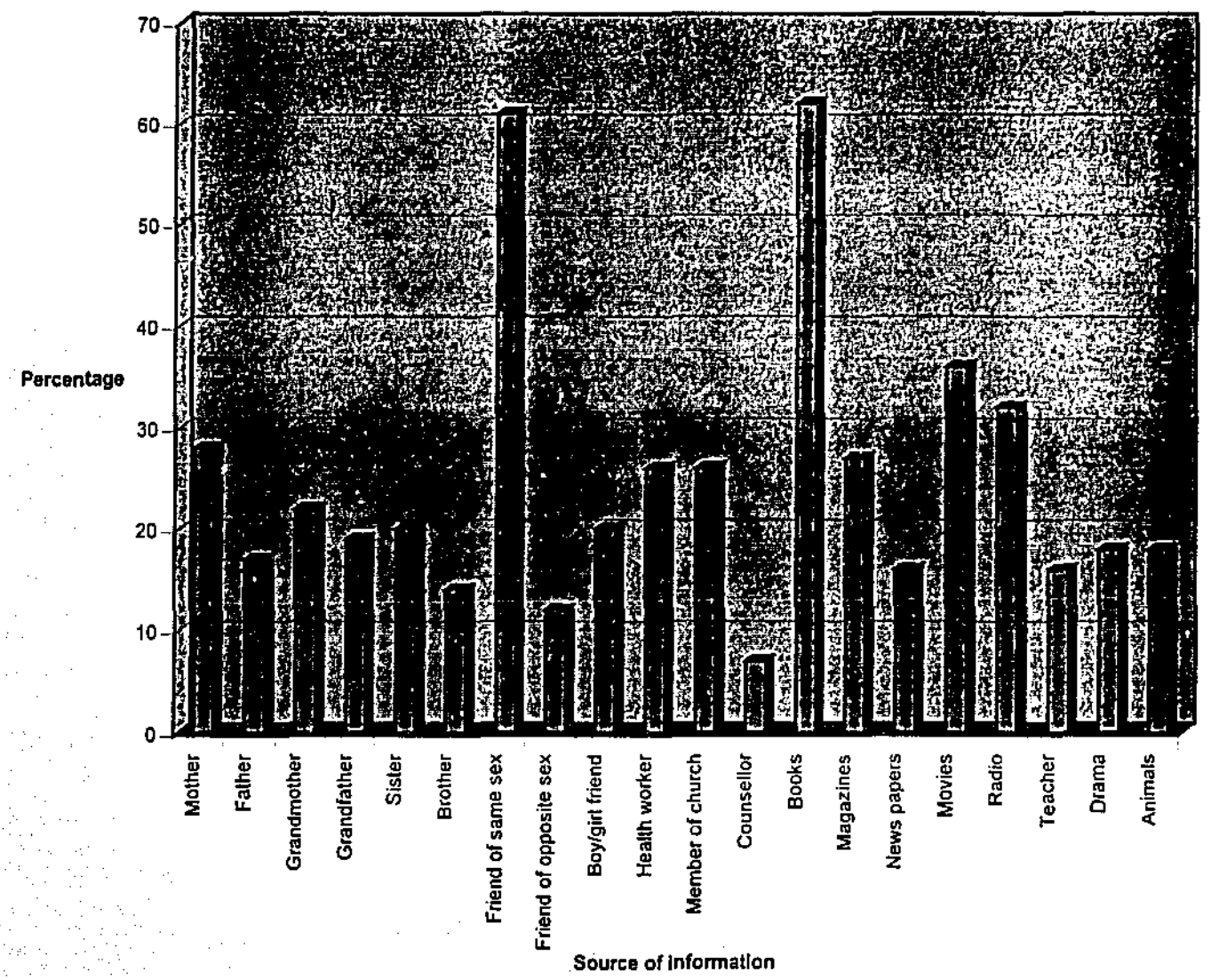

Figure 3: Sources of Sexual Information

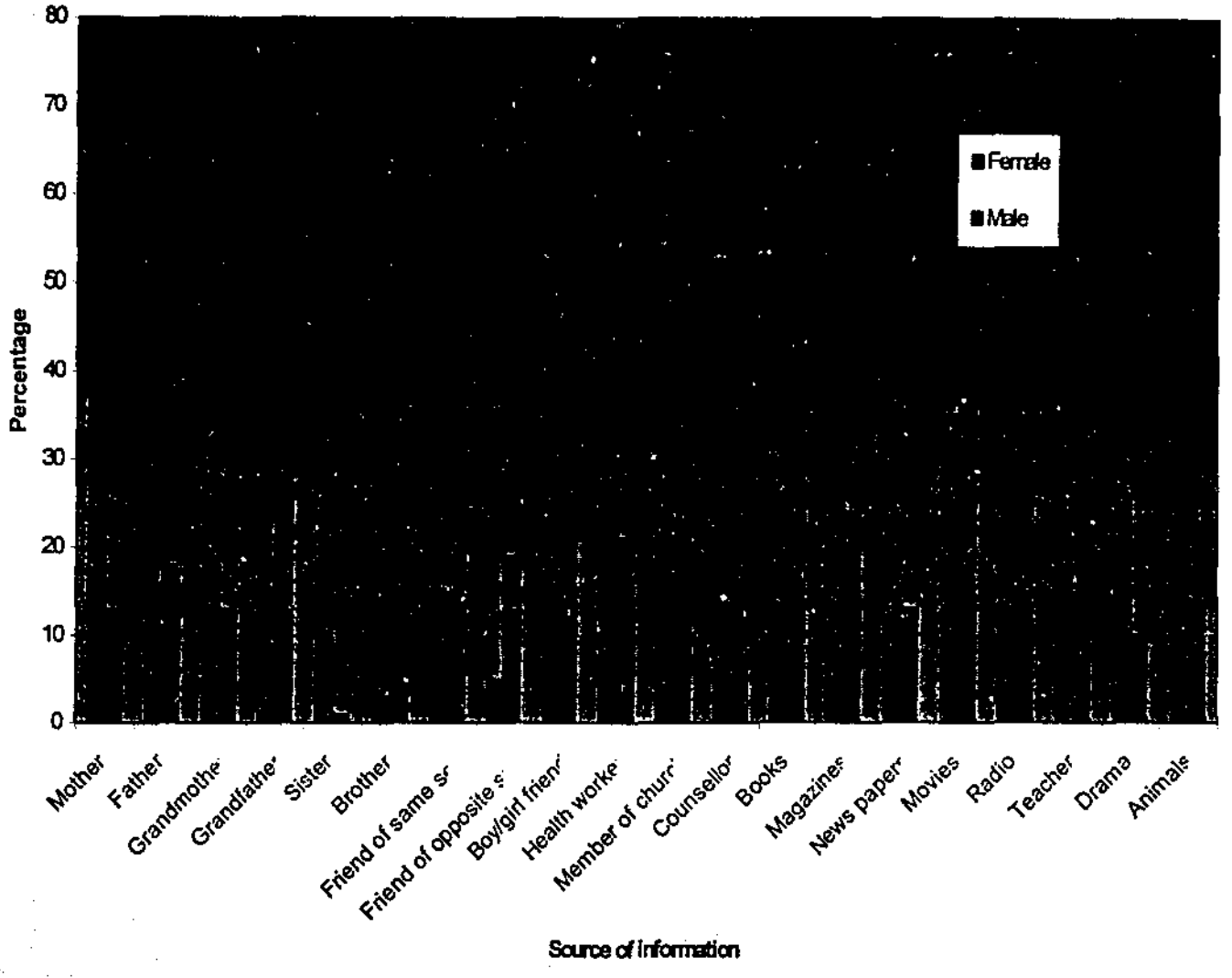

Figure 4: Sources of information by gender

What Sexual Issues Do Participants Consider Important

The participants were provided with a list of 14 sexual issues and they were required to rank them on a five point Likert scale, regarding how important they considered these sexual issues to be. The scale had a rating of one to five on which one: was not comfortable and five was very comfortable with three as a neutral mark. The scores ranged from 4-62 out of 70 points. The scores for each item was totaled for all participants. The mean and standard deviation (SD) was then calculated for each item in the list.

It was found that sexually transmissible diseases were considered to be the most important sexual issue that the participants would like to know more about 41.6% (n =

62). This was followed by marriage 34.9% (n = 52). On the other hand, a 'fisi', (i.e. a man who traditionally breaks a girl's virginity by sexual intercourse soon after menarche) was considered not important, nor was circumcision (Table 12).

Table 12:

Sexual issues that participants consider important

	n	Mean	Std. Deviation
Marriage	125	3.85	1.34
Male reproductive system	107	3.73	1.51
Abstinence	100	3.58	1.53
STDs	136	3.50	1.69
Female reproductive system	109	3.38	1.54
Child birth	129	3.26	1.42
Birth control	131	3.24	1.64
Pregnancy	128	3.12	1.56
Menstrual cycle	121	3.11	1.52
Masturbation	110	3.11	1.58
Sexual intercourse	132	2.96	1.59
Sexual abuse and rape	117	2.68	1.61
Fisi	119	2.18	1.59
Circumcision	109	2.09	1.29

Minimum score=1 (Not important) while the maximum score =5 (Very important). Each participant's score was added and averaged to obtain a final score.

Comfort in Discussing Sexual Issues

The participant's comfort in discussing sexual issues was assessed by first asking them to identify the individuals with whom they can comfortably discuss sexual issues with. This was followed by how comfortably they could discuss a sexual issue with a classmate of the same sex and of the opposite sex. Situations in which they could discuss the sexual issues were explored, including the mode of communication. Lastly, their comfort in communicating about a sexual intention was also explored.

With Whom Do Participants Feel Comfortable Discuss Sexual Issues.

The participants were provided with a list of 14 possible individuals and asked to rank them on a five point Likert scale, regarding how comfortably they can discuss sexual issues with each. The scale had a rating of one to five on which one: was not comfortable and five: was very comfortable. Scores ranged from 0-78 out of 80 points. The score for each item was totalled for all participants. The mean and standard deviation (SD) was then calculated for each item in the list (Table 13).

It was found that a friend of the same sex (n = 89) was considered the person with whom the adolescents felt comfortable discussing sexual issues, giving a mean of 4.55 (SD=0.78); while boy friend/girl friend was second (mean of 4.23, SD=1.00). Father, followed by mother and uncle were the least likely person with whom the participants would discuss sexual issues.

Table 13

Individuals with whom Participants Comfortably Discuss Sexual Issues

	n	Mean	SD
Same sex friend	134	4.55	0.78
Boy/girl friend	126	4.23	1.01
Health worker	124	4.00	1.13
Grand mother	121	3.17	1.52
Teacher	115	3.02	1.38
Brother	127	3.00	1.46
Sister	120	2.97	1.52
Counsellor	115	2.94	1.37
Opposite sex friend	121	2.93	1.44
Church member	115	2.87	1.45
Aunt	121	2.80	1.46
Grand father	117	2.58	1.45
Uncle	113	2.50	1.38
Mother	126	2.27	1.46
Father	122	2.02	1.27

Minimum score =1 (Very uncomfortable) while maximum score =5 (Very comfortable). Each adolescent's score was added then averaged to obtain a final score.

Discussion with Classmates.

In an attempt to identify the participant's comfort in discussing sexual issues with classmates, participants were provided with eleven conditions in which a classmate had asked them a question of a sexual nature. Using the five point Likert scale, the participants were asked to rank their level of comfort in discussing the specific sexual

issue. First the hypothetical question was asked by a male then a female classmate. Descriptive statistics were used after splitting the file into gender. Scores ranged from 0-47 out of 55 points. The score for each item was totaled for all participants. ANOVA was used to determine significant differences between comfort levels and discussing issues male to male, male to female, female to male and female to female.

Males are significantly more comfortable talking to males about all sexual issues (menstrual cycle, $F(1, 118) = 6.096$, $p = .012$; conception, $F(1, 109) = 7.115$, $p = .009$; sexual intercourse, $F(1, 130) = 41.393$, $p = .000$; pregnancy, $F(1, 129) = 8.464$, $p = .004$; STDs, $F(1, 129) = 5.538$, $p = .022$; masturbation, $F(1, 111) = 6.221$, $p = .014$; male reproductive system, $F(1, 112) = 24.168$, $p = .000$; female reproductive system, $F(1, 111) = 27.565$, $p = .000$; circumcision, $F(1, 108) = 5.223$, $p = .024$) except childbirth and homosexuality (Table 14). for these two issues there was no significant difference in comfort level between male to male or male to female communication.

Females are significantly more comfortable talking to females only about the menstrual cycle ($F(1, 118) = 11.170$, $p = .001$). For all of the other issues there was no significant difference in comfort level between female to female or female to male communication (Table 15).

Table 14
Analysis of Variance: Comfort in discussing Sexual Issues, Males

		N	Mean	S.D.	df	F	p
Menstrual cycle	Male	61	3.4918	1.3859	1	6.096	.015
	Female	66	2.8788	1.4089	125		
	Total	127	3.1732	1.4259	126		
Conception	Male	52	3.2885	1.2100	1	7.115	.009
	Female	59	2.7119	1.0676	109		
	Total	111	2.9820	1.1676	110		
Sexual Intercourse	Male	60	4.1833	1.2281	1	41.393	.000
	Female	72	2.7222	1.3555	130		
	Total	132	3.3864	1.4861	131		
Pregnancy	Male	63	3.3492	1.3814	1	8.464	.004
	Female	68	2.6618	1.3227	129		
	Total	131	2.9924	1.3895	130		
Child birth	Male	60	2.8500	1.4824	1	1.558	.214
	Female	66	2.5455	1.2549	124		
	Total	126	2.6905	1.3709	125		
STDs	Male	61	4.0328	1.4020	1	5.385	.022
	Female	70	3.4286	1.5564	129		
	Total	131	3.7099	1.5114	130		
Masturbation	Male	54	3.1296	1.5178	1	6.221	.014
	Female	59	2.4915	1.1944	111		
	Total	113	2.7965	1.3898	112		
Homosexuality	Male	49	2.6531	1.5214	1	1.375	.244
	Female	60	2.3500	1.1764	107		
	Total	109	2.4862	1.3445	108		
Male Reproductive System	Male	51	3.9216	1.3542	1	24.168	.000
	Female	63	2.6667	1.3560	112		
	Total	114	3.2281	1.4876	113		
Female Reproductive System	Male	50	3.9400	1.3001	1	27.565	.000
	Female	63	2.5714	1.4336	111		
	Total	113	3.1770	1.5308	112		
Circumcision	Male	50	2.8200	1.4665	1	5.223	.024
	Female	60	2.2333	1.2264	108		
	Total	110	2.5000	1.3664	109		

Table 15
Analysis of Variance: Comfort in Discussing Sexual Issues, Females

		N	Mean	S.D.	df	F	p
Menstrual cycle	Male	54	3.3519	1.5192	1	11.170	.001
	Female	66	4.1818	1.2014	118		
	Total	120	3.8083	1.4100	119		
Conception	Male	49	3.2245	1.1773	1	.222	.638
	Female	60	3.3333	1.2166	107		
	Total	109	3.2844	1.1948	108		
Sexual	Male	62	3.5484	1.4562	1	1.339	.249
Intercourse	Female	68	3.2500	1.4800	128		
	Total	130	3.3923	1.4706	129		
Pregnancy	Male	58	3.5690	1.3906	1	.360	.550
	Female	67	3.4179	1.4158	123		
	Total	125	3.4880	1.4006	124		
Child birth	Male	55	3.1091	1.4488	1	2.288	.133
	Female	65	3.4923	1.3243	118		
	Total	120	3.3167	1.3901	119		
STDs	Male	55	4.0000	1.4142	1	1.167	.282
	Female	66	3.7121	1.4963	119		
	Total	121	3.8430	1.4606	120		
Masturbation	Male	50	2.4600	1.3433	1	1.204	.275
	Female	60	2.7500	1.4097	108		
	Total	110	2.6182	1.3813	109		
Homosexuality	Male	49	2.5510	1.4586	1	.276	.600
	Female	58	2.4138	1.2430	105		
	Total	107	2.4766	1.3413	106		
Male	Male	49	3.0204	1.5477	1	.254	.615
Reproductive	Female	62	3.1613	1.3931	109		
System	Total	111	3.0991	1.4582	110		
Female	Male	52	3.3654	1.5215	1	.566	.453
Reproductive	Female	61	3.5738	1.4196	111		
System	Total	113	3.4779	1.4644	112		
Circumcision	Male	48	2.2292	1.2756	1	1.537	.218
	Female	60	2.5500	1.3830	106		
	Total	108	2.4074	1.3398	107		

When can Participants Discuss Sexual Issues.

The participants were provided with a number of situations from which they were asked to indicate whether or not they could discuss a sexual issue. A majority (n = 113) considered they could discuss a sexual issue when they felt the need to help a friend. The next group could discuss sexual issues only if seeking advice (n = 99) while

a minority considered themselves as shy and could not discuss a sexual issue under any circumstance (n = 25) (Table 16).

Table 16

Situations in Which Participants can Discuss Sexual Issues

Situation	True	False
	n (%)	n (%)
When I feel I need to help a friend	113 (75.8)	23 (16.1)
When seeking advice	99 (66.4)	35 (23.5)
Only if I like the topic	70 (47.0)	63 (42.3)
Only when asked	78 (45.6)	64 (43.0)
If it is someone I like	63 (42.3)	67 (45.0)
Only in a group discussion	62 (41.6)	73 (49.0)
I can discuss under any situation	51 (34.2)	82 (55.0)
I am shy, hence I can not discuss in any situation	25 (16.8)	108 (72.5)

The participants were provided with situations in which they were asked to rate their level of comfort in discussing specific sexual issues. Of the issues provided, the majority indicated being very comfortable buying condoms (n = 53, 35.6%). Talking to sexual partner about using a condom/contraceptive method was considered second (n = 41; 27.5%), followed by talking to a health personnel about a sexual issue (n = 40; 26.8%), then talking to a friend of same sex about a sexual issue (n = 36; 24.2%). Talking to a friend of opposite sex about a sexual issue was considered last (n = 4, 2.7%).

How Participants Communicate Sexual Issues.

When asked which mode of communication the participants felt comfortable with when discussing a sexual issue, face to face communication was considered the most comfortable (n = 108, 72.5%). Written communication was next (n = 31, 20.8%) while telephone communication was the least comfortable form of communication (n = 6, 4%).

Summary

The findings have indicated that the major sources of sexual information the participants used were books and friends of same sex. Mothers and fathers were among the least used sources of sexual information. Teachers, counsellors and medical personnel did not rate very high. The participants also indicated wanting to know more about marriage, female reproductive system, abstinence and sexually transmittable diseases. The items considered least important were circumcision and 'fisi'.

The findings also indicated that boys were more comfortable in discussing sexual issues with boys, and except for menstruation issues, girls were comfortable talking to either gender about most issues. The participants mainly felt they could comfortably discuss a sexual issue when there is need to help a friend or when seeking advice. Face to face discussions were preferred as opposed to telephone or written communications. The participants feel freer buying condoms as opposed to talking to the sexual partner about using a condom, talking to a health worker, friend of same sex or friend of opposite sex about use of condoms.

Summary of Chapter

In this chapter, demographics, sources of information and the participant's comfort in discussing sexual issues have been discussed. The findings showed that the

participants were within the age limit of 12-18 years and had all reached puberty. There was a wide representation according to family background (tribe, size, position, parental/guardian's education and parental/guardian's occupation), religious background and sexual life of the participants.

The participants indicated that they obtain most of the sexual information from each other and phonographic materials (books, videos, and magazines) as opposed to parents, church members, health personnel and counsellors. This influenced the participants to be freer discussing sexual issues amongst themselves more especially with friends of same sex.

Chapter Five

Discussion

This chapter discusses the findings of the study in relation to studies that have been conducted in Africa and other countries. The study's findings regarding the demographic profile of the participants, their sexual life, sources of sexual information and comfort in discussing sexual issues with different community members will be examined. This will be followed by an application of the study to Social Cognitive Theory. Lastly, the study's strengths and weaknesses will be outlined.

Demographic Profile of Participants

This section addresses the demographic profile of the participants. The profile includes gender and age, tribal background, living arrangements, parental education and occupation followed by the participant's involvement in religious activities.

Gender and Age

The participants consisted of 51.7% (n = 77) females and 48.3% (n = 72) males. The sample comprised of almost equal numbers of both girls and boys and therefore, the sample is representative of gender. However this gender distribution is not representative of the secondary school population in Malawi. The total intake of the three schools surveyed in this study comprises of more boys (n = 1432) 59% than girls (n = 1003) 41%. The finding supports that of United Nations in Malawi and Malawi Government (1992) and Munlo et al. (1995) who had indicated lower numbers of girls in secondary schools than boys mainly as a result of high rates of teenage pregnancies. The other reason might be that, traditionally, it was believed that boys should be educated while girls need not. It was believed that the primary roles of

women are to serve their husbands and bear and raise children (United Nations in Malawi and Malawi Government, 1992). The government and other organisations, which are in support of gender equality, are currently challenging such beliefs and practices. The 'girl child' is an example of a programme currently being run by the Malawi Government in conjunction with UNICEF to address these issues. The currently identified gender difference in education of secondary students of 18% might decrease in the near future as parents and organisations realize the importance of educating girls.

Gender of participants was anticipated to be an important demographic factor influencing findings because gender affect sexual behaviour. In most Malawian cultures, women are not expected to be initiators but receivers. This is true of sexual issues. Women are not expected to initiate sexual intercourse or openly show their sexual desires even when dealing with their husband (AIDS secretariat, 1994). Instead, women are expected to respond positively to their husband's/men's sexual desires. In some tribes, such as the Yaos, reports indicated that it is considered a 'sin' for a woman not to respond positively to her husband's/man's sexual needs. Such beliefs, customs and practices affect the socialisation process of girls and boys, which can have a major impact on their behaviour. It is only recently that government and community organisations have sensitised the community to the importance of girls' education, delayed sexual encounters and safe sexual practices before marriage.

The age of the participants ranged from 14-18 years with a mean age of 17 (SD = 1.1) despite one participant indicated being 19 years old. The participants therefore met the required definition of an adolescent (Chiluzi, 1997; Munro et al., 1995; Kubolck et al., 1988; Kuczyunski, 1988; Monsen et al., 1996) as well as the required selection criteria for inclusion in the study, which was to be aged 12 – 18 years.

In many developed countries, the education system ensures that adolescents have finished their high school by the time they are around 17 years of age. This is not

so in Malawi where the education policy permits individuals to enrol in primary education at any age from 6-15 years or more (United Nations in Malawi and Malawi Government, 1992) in order to improve the literacy level of citizens. This results in some students reaching adolescence while in their primary education while others might do so in their secondary education. During the recruitment process, secondary students as old as 21 years were being identified. The sample in this study was representative of the normal Malawian age at secondary school.

Living Arrangements

A majority of the participants came from the urban area (75.2%, n = 112) while a minority were from the rural area (24.8%, n = 37). The findings contradict the country's population distribution of which 90% of the total population live in the rural area (Khonje, Bandazi, Lungu, Luhanga & Msapato, 1992). This suggests that more people from the urban area educate their children than those from the rural area. Apart from easy access to education in the urban area and that recruitment was mainly from the urban, the other reason can be that the urban areas have better learning facilities hence more people get educated. For example, the teacher/student ratio is low in urban areas while it is very high in the rural. This is mainly influenced by the marital status of the teachers. Many teachers are females and they stay in the city where their spouses are working (United Nations in Malawi & Malawi Government, 1992). United Nations in Malawi and Malawi Government also report that teachers in urban area are usually qualified while those in the rural are untrained leading to more urbanities receiving an education.

The majority of the participants (67.8%, n = 101) lived with their family of origin while the rest lived with a family member which was expected. In Malawi, school children remain their parents' responsibility hence the students mainly remained with

parents. Staying with parents could facilitate sexual discussions between parents and their children. However, many parents do not fulfil this role in Malawi where it is considered taboo for parents to discuss sexual issues with their young (Banda et al., 1997; National Family Welfare Council of Malawi, 1995; SARYD, 1997). Studies conducted in some developed countries such as United States of America have shown that when parents discuss sexual issues with their children, the age of first sexual encounter increases and rates of teenage pregnancy is reduced (Baumeister et al., 1995; Tucker, 1991).

A majority of the participants lived with a married couple (78%, n = 116) in most instances, their parents. Marital status of the person they live with is significant because it potentially influences the social relationships, discussions being held, modelling and decision making abilities of the participants (AIDS secretariat, 1994). In turn, this could affect adolescent's decision-making processes regarding their sexual life. Those living with widowed mothers (9.4%, n = 14), divorced mothers (6.7%, n = 10), single fathers (2%, n = 3) and single mothers (1.3%, n = 2) might encounter the problem of receiving sexual information from only one parent. While parents in Malawi tend not discuss sexual issues with their young (AIDS secretariat, 1994; Banda et al., 1997; Chiluzi, 1997; Gwengwe, 1978 & Munlo et al., 1995), the situation becomes worse when discussing sexual issues with children of the opposite sex (AIDS secretariate, 1994, Dilorio et al., 1996).

A majority of the participants came from large families with the mean family size of 5.6 (SD = 2.3). This finding supports that of United Nations in Malawi and Malawi Government (1992) which indicates that the mean number of children in a Malawian family is 5.6 with the central region having a mean family size of 5.8- 9.6 children per woman. The major contributor to large family size is a high fertility rate,

which is estimated at 7.6 births per woman in Malawi (United Nations in Malawi & Malawi Government, 1992).

Parental Education and Occupation

According to the 1987 census report for Malawi, 65% of males and 34% of females were literate (Bissio, 1995). Bissio also states that in 1990, the total primary school education enrolment was 72% for boys and 60% for girls; while secondary school enrolment was 5% for boys and 3% for girls. In the current study, it was found that most parents/guardians had undergone formal education (especially secondary and above). Only 5.4% (n = 8) of parents had no formal education. It appears from the study that educated parents also educate their children.

The majority of the participants' parents had formal education (88% mothers and 85.9% fathers). This finding contradicts Bissio (1995) who had identified that the country's literacy level was 65% male and 34% females. This then might signify that the sample was not representative of the educational level of Malawian citizens, probably because the participants mainly originated from the urban area, which has been identified to having better educational facilities than the rural area. As parents become educated, it is anticipated they are likely to adopt more modern practices (United Nations and Malawi Government, 1992). One such practice may be social relationships between parents and children, which can positively affect the adolescent's sexual decision making and sexual life.

Parent/guardian educational levels directly affected their occupation and thus the economic status of the family. Economic status of the family can have an effect on an adolescent's sexual decision making ability, for example, getting involved in sex for money (AIDS secretariat, 1995).

Religion and Involvement in Religious Activities

The study found that almost all the participants had religious affiliations. The majority were Christian (96%) belonging to Protestant churches (63.8%, n = 95). Only 3.4% (n = 5) belonged to Islamic religion while one participant (0.7%) indicated not belonging to any religious group. The results support the African News Agency (1998) and National Welfare Council of Malawi (1997) who all indicate that the majority of the Malawian population are Christians, while Muslims and those possibly still practising traditional beliefs are the minority. The findings of Bissio (1995) however, indicated that most Malawian inhabitants still practice traditional religions. It could possibly be concluded that the participants in this study incorporated traditional religion into their lives as well as belonging to either Christianity or Islamic religions.

A majority of the participants were actively involved in religious activities on weekly basis (75.8%, n = 113). Ten percent of the participants participated more often than once a week while another 10.1% indicated visiting the church occasionally or not visiting at all. Involvement in religious activities can have great influence on an individual's attitude, beliefs and practices. These can affect an individual's sexual decision making ability. According to a Kenyan study (Karigu & Zabin, 1993), adolescents who were more active in religious activities were less likely to initiate sexual activity early. However, findings of the current study contrast this finding.

Religious beliefs may have an effect on an individual's beliefs, customs and practices. Christianity, for example, advocates sexual abstinence before marriage even though this contradicts what is actually happening among adolescents (Chiluzi, 1997). On the other hand, the Islamic religion, which is mainly practised among the Yao tribe in Malawi, advocates early sexual encounter, marriage and childbirth (AIDS secretariat, 1995; United Nations in Malawi & Malawi Government, 1992). However, the number of Muslims in the current study was too small to draw any conclusions probably

because central region where the study was conducted, has fewer Muslims than the southern region.

Tribal Background

Malawi has nine main tribes (Khonje et al., 1992) all of which were identified in the study. The majority of participants in the study belonged to Chewa tribe (46%, n = 69), followed by Ngoni, (18.1%, n = 27) then Tumbuka (13.4%, n = 20). Yao (8.1%) and the other tribes were the minority. The results are representative of the central region of Malawi population, where the study was conducted, in which the tribes of Chewa and Ngoni are dominant.

Traditionally tribal groups have different customs, beliefs, practices and taboos that have a significant impact on the values and social relationships that exist in the tribe. These values may affect an individual's decision making regarding health and education. Traditionally, each tribe passes on practices of health and education differently to their children. In most cases, initiation ceremonies regarding health issues are used as a means of educating the young. The ceremonies are held just as puberty is reached and act as a bridge from youth to adulthood. Some tribes, especially the Chewa, encourages early sexual encounter through the use of 'Fisi' (a man who breaks a girl's virginity through sexual intercourse soon after puberty has been reached) (Gwengwe, 1978). Other tribes, especially the Yao tribe, encourages early marriage and child bearing as a proof of maturity (United Nations in Malawi & Malawi Government, 1992; the National Safe Motherhood Task Force (1996). The *anankungwi* (traditional sex counsellors) both male and female, are entrusted to teach the children. However, in Malawi, as well as other African countries, the respect that these practices used to hold among the community is disappearing (AIDS secretariat, 1995, National Family Welfare Council of Malawi, 1995).

Summary of Demographic Profile

The demographic profile shows a recruitment of equal numbers of male and female participants even though each school has an enrolment of more males than females. Most participants were already in their adolescence period, which is normal considering the Malawian education policy. The majority of participants originated from urban areas. The participants were more likely to be living with their families of origin. The study was conducted in the central region of Malawi, in which the Chewa and Ngoni tribes dominate. Furthermore, a majority of the participants were actively involved in religious activities.

Sexual Activity and Influencing Factors

This section discusses the research findings regarding puberty and sexual activity of the participants. Factors that influenced the participant's sexual activity will be incorporated with statistically significant findings reported first.

There was a statistically significant association between gender and sexual activity ($X^2 = 20.428$, df = 1, p = .000). Gender was found to have a great influence on the participant's sexual activity in which more boys reported being sexually active than girls. This supports the findings of researchers such as Kiragu and Zabin, (1993) and Wilson and Lavelle (1992) who had also identified that boys are more likely to be sexually active than girls. In many societies, it is more socially acceptable for boys to be sexually active than girls. O'Hara et al., (1996) support this by indicating that a majority of boys as opposed to girls felt their friends and family would think it was okay if they had sex. Likewise, Tucker, (1991) identified that some families were happy when their sons had impregnated a girl. Such social norms then influence boys to be more sexually active and they may exaggerate how sexually active they really are (Keller et al., 1996 & WHO, 1996, a). Fewer girls than boys were sexually active perhaps because in

general, girls fear pregnancy. In most cases, if pregnancy occurs, it is considered to be the girl's responsibility and usually they withdraw from school so that they can care for the baby (USRD, 1997; Munro et al., 1994). Considering the high demands for space in government secondary schools such as the ones used in this study, it is usually considered a great achievement for a girl or boy to secure a place. The girls in the study might consider it not worth trying to lose such a chance and so abstain from sexual activity. In most cases, students who drop out of government secondary schools find it expensive to attend private schools. As a result, most pregnant girls in Malawi end up getting married or secure low paying jobs which makes their life hard. Their chances for personal achievement and economic success in life are reduced (Dilorio et al., 1996 Munlo et al., 1994). Monsen et al., (1996) identified similar results in their study in which girls avoided sexual activity because they feared pregnancy and disease. However, even though the study identified that males were more sexually active than females, Wilson and Lavelle (1992) contend that African women may be less open in answering questions regarding sexual behaviour. This is because of cultural attitudes towards female premarital sex that may encourage females to under-report their sexual activity.

The mean age at first sexual encounter for boys and girls remained the same. Both sexes had indicated having had their first sexual encounter between 10-18 years of age with mean age of 14.7 (SD 2.3) for boys and 14.94 (SD 2.5) for girls. The findings support those of Schwartz (1996) who had reported that generally, it is accepted that coital activity is likely to begin in mid-adolescence period, which is around 15 years of age. There was a statistically significant association between age and sexual activity (X^2 = 13.423, df = 5, p = .020): as the participants got older, they were more likely to engage in sexual activity.

Ninety eight percent of the participants indicated having reached puberty but the remainder did not specify. The participants who did not state the age they reached puberty perhaps did not understand the question, had forgotten the age they reached puberty or were too shy to specify personal sexual issues as such sexual issues are considered taboo.

Globally, the age of reaching puberty is decreasing (National Family Welfare Council of Malawi, 1995; WHO, 1996, b). As a result, there is lengthening of the adolescence period from 15-17 years to the period between 11 years or younger, to 21 years (National welfare council of Malawi, 1995). In this study, the age participants reached puberty ranged between 11-18 with a majority of the participants reaching puberty between 14 and 16 years (73.1%). Mean puberty age was 14.6 with a SD = 1.2 (Table 9) indicating that participants in this study reached puberty within the age range that puberty is anticipated.

In many Malawian tribes, reaching puberty is celebrated with traditional initiation ceremonies, held to represent the individual's transformation into adulthood (Gwengwe, 1978). The *anankungwi* are charged with the responsibility of preparing the boys and girls for adult life (AIDS secretariat, 1994; Gwengwe, 1978). The knowledge held by the *anankungwi* is vital to the understanding of sexual life in the village even though they are increasingly being considered old-fashioned (AIDS secretariat, 1994).

In Malawi, as in most cultures, adolescents are expected to refrain from sexual intercourse until they are married (National Safe Motherhood Task Force, 1995; WHO, b 1996). Despite this, many adolescents are already sexually active (i.e. having sexual intercourse) when they reach puberty or initiate sexual activity during the period of adolescence (AIDS secretariat, 1994; National Safe Motherhood Task Force, 1995; WHO, 1996, b). In the current study, the age at which sexual intercourse was initiated ranged from 11-18 years. The finding supports that of AIDS secretariat (1994) and

National Safe Motherhood Task Force (1995) who had indicated that the median age of first marriage in Malawi is 18 years for girls yet most girls become sexual active long before this.

Adolescents become sexually active due to sexual desires, pressure into having sex, experimentation or for monetary reasons (AIDS secretariat, 1994; WHO, 1996, b). In the current study, it was found that 38.9% of the participants had indicated that they had experienced sexual intercourse. Of the males, 56.9% (n = 41) were sexually active while 22.1% (n = 17) of females were sexually active. The participant's ambitions for the future can influence the decision whether or not to be sexually active. This was indicated by comments given by some participants in the study who had indicated that their plans were to go to University. The findings support those of Monsen et al., (1987) who had identified that the adolescents who abstained from early sexual activity reported that they wanted to have a better future that could hold love, marriage and children. While the study did not examine possible reasons for and against adolescent sex, some participants wrote motivators for having sex such as "it is nice" or "it is over with my former girl friend but I am looking for another one". The reasons for not having sex that the participants wrote included such remarks as "I want to go to University", "I will not have sex until I get married" and "I hear I will cry if I have sex". Social background, role models, future plans, ambitions in life, economic status, psychological factors and being in a long term relationship with a potential life partner can influence an adolescent's decision to be or not to be sexually active (Monsen et al., 1996, WHO, 1996, b).

A majority of sexually active boys and girls indicated having had only one sexual partner. Of those who had more than one partner, boys ranked highest (40.6% n = 13) while only two girls indicated having had more than one partner (Table 14). The findings support those of Kiragu and Zabin (1994) and Sawyer (1996) who had

identified that boys were likely to have more sexual partners than girls. The results are problematic in that only half of the sexually active participants responded to the question. The poor response rate might have occurred because sexual issues are regarded as confidential hence, the participants did not want to disclose their private sexual experiences. Apart from this, the participants might not have really been sexually active.

Findings show that 42.6% of the urban dwellers were sexually active while 35.3% from rural areas were sexually active. This suggests that participants from the urban region were more active than their rural counterparts. Participants from urban areas are exposed to a lot of media and sexual material that might influence them to be more sexually sophisticated (Monsen et al., 1996). Such materials include videos and reading materials. Contraceptive items such as condoms are more readily available in the urban areas because of the greater number of clinics and shops. This can influence adolescents to get involved in sexual experimentation. Those from the urban areas are also more likely to have free periods away from their working parents. In some cases, both parents might be working which leaves the adolescent/s free to explore their sexuality while their rural counterparts are usually working in the fields together with their parents.

There was no statistically significant association between religion and sexual acitivity. Forty-one percent Protestants and 37% Roman Catholics were sexually active. Few Muslims were in the sample, making it difficult to draw conclusions for this group. Less than half of the Protestants and Roman Catholics were sexually active even though Christianity teaches against pre-marital relationships. Muslims could have been expected to be more sexually active because in Malawi, a majority of the Muslim population belongs to the Yao tribe, which advocates early marriage. However, programmes, which advocate for education of the 'girl child' might be having an impact

on the importance of education of girls as opposed to early marriage. Similar results could have been expected for those belonging to no religion because they do not have any religious beliefs to follow. Numbers of those not belonging to any religion were too small to draw conclusions.

Ninety percent (n = 128) of the participants either engaged in their religious activities regularly, that is, once or more while 10% (n = 15) did not attend. For the regular attendants, 38%, (n =49) indicated being sexually active while 27%, (n = 4) of those who do not attend were active. Considering the small sizes of those who do not attend, no significant conclusions can be drawn from the results. However, the statistics indicated that greater religious participation resulted in greater sexual activity. It could be suggested that the more religious individuals are more sexually active probably because their religious activities bring them together more with the opposite sex. Such religious activities include being a choir member, fund-raising activities, drama and picnics.

Findings show that the more educated the parents, the lower the rate of sexual activity in their children, and vice versa, lower parental education is associated with higher rates of sexual activity amongst adolescents. This supports findings by Kiragu and Zabin, (1993). This could be attributed to parents with higher educational qualifications acting as role models for their children. The parents also act as a source of academic support for the children because they understand and appreciate the importance of education. Higher educational levels also indicate a higher economic status. Parents with a better financial status can easily meet the economic needs of their children. Adolescents then need not involve themselves in sex for money as is more likely for those from a poor economic background (AIDS secretariat, 1994; WHO, 1996, b).

Summary

This section has discussed sexual life of the participants. It has been discussed that less than half of the participants were sexually active. Of the sexually active, almost similar numbers became sexually active before puberty as after puberty. A majority of the sexually active participants had one sexual partner. Religion, tribe, parental education, and occupation of parent had little impact on participant's sexual life.

Participant's Sources of Sexual Information

The participants utilized different sources to obtain information on sexual matters. This section discusses the sources of sexual information identified and accessed by the participants whilst growing up. Firstly, the sources used by the participants will be discussed. This will be followed by a review of the factors that influenced their choices.

Friends

It was found that 61.1% (n=91) of the participants considered friends of same sex as the major source of sexual information. This supports a number of earlier studies (Banda et al., 1997; Kau, 1991; Li & Davey, 1996; National Family Welfare Council of Malawi, 1995; National Safe Motherhood Task Force, 1995; Ndlovu and Sihlangu, 1991; SARYD, 1997; Sawyer et al., 1996 & Thornburg, 1981). Thornburg states that since 1920, studies undertaken on adolescent sexual practices have indicated that peers remain an important source of information in almost all areas of sexuality.

Participants utilized friends of same sex for information more than they did their sexual partners (20.1%, n = 30) or friends of opposite sex (12.1%, n = 18). This might be attributed to the accommodation arrangements in boarding schools. In Namitete and Mchinji Secondary Schools, boys are accommodated separately from girls. This

facilitates times when both groups can discuss sexual issues separately while minimizing periods of contact with the opposite sex. Ndlovu and Sihlangu (1991) and Kiragu and Zabin (1993) also identified that students from boarding schools were more likely to turn to their same sex peers as a source of sexual information, than those from non-boarding schools. The finding shows that very little sexual communication occurs between adolescents of opposite sex, possibly due to shyness or school regulations which do not facilitate interaction between adolescents of opposite sex outside school curricula.

Boys considered friends of same sex as a source of information (71.8%, n = 51) more than girls (53.3%, n = 40). This can probably be because in the Malawian tradition, girls spend a larger portion of their time doing household work, while boys have more free time to move around and discuss issues with their friends. This finding supports that of Thornburg (1981) who had also identified that boys relied on their friends for sexual information more than girls. Relying on friends for information is problematic as peers may be equally ignorant, so providing misinformation (Banda et al., 1997).

Boys also turned to girls for information (19.7%, n = 14) more than girls turned to boys (5.3%, n = 4). This supports the traditional Malawian belief that boys, as opposed to girls should initiate sexual discussions (AIDS secretariat, 1994). A similar result was identified with sexual partners. Boys were also more likely to seek information from sex partners (26.8%, n = 19) than girls (14.7%, n = 11). As a result, a girl's ability to negotiate sexual issues with her sexual partner may be compromised (SARYD, 1997). In cultural terms, it is the norm that a girl does not initiate sexual intercourse (AIDS secretariat, 1994). The expectation to be submissive makes it hard for girls to openly discuss sexual issues with male peers or their partner.

Participants from urban areas relied upon friends of same sex (63.3%, n = 70) as sources of information, more than those from rural areas (58.3%, n = 21). The demands of farming may impact on the possibility rural students have to discuss sexual issues with their friends. Similar time constraints would not exist for urban participants. Consequently, urban participants indicated greater sexual activity and more sexual partners than their rural peers.

Media Sources

Items considered media sources in this study were reading materials (books, magazines, and newspapers), movies, radio and drama. Findings showed that apart from friends of same sex, books were considered a major source of sexual information (61.7%, n = 92). Li and Davey (1996) found that United States college students, especially male students, considered pornographic materials as one main source of their sexual information. However, the availability of such material is questionable among Malawian secondary school students, as strict censorship rules regarding pornographic material exist. Participants are most likely to have studied biological and academic books, fiction material or other texts that provide sexual descriptions (AIDS secretariat, 1994).

Magazines and newspapers were also identified as good sources of sexual information among the participants. Similar findings had been identified by Hsu, et al. (1997); National Welfare Council of Malawi (1995); Ndlovu and Sihlangu (1991); Polivka (1996) SARYD (1997) and Sawyer, et al. (1996). Availability and cost may limit student's access to these resources. Whilst urban secondary schools might be supplied with newspapers, rural schools may receive limited materials.

Boys were more likely to read books as a source of information, while girls resorted to magazines and newspapers. As a result of spending large portion of their

time doing household work, a girl's spare time only permits an opportunity to browse through a magazine or a newspaper. The finding that boys read more books than girls supports that of American researchers Li and Davey (1996). Their research suggests that when boys read pornographic books, they do so in response to cultural stereotypes in which men are more interested in sex than women.

Participants also considered movies and the radio as sources of sexual information, supporting Banda et al. (1997); Hsu et al. (1997); National Welfare Council of Malawi (1995); Ndlovu and Sihlangu (1991); SARYD (1997) and Sawyer et al. (1996). Drama was also considered a source of information by 18% (n = 27) participants. The finding supports those of National Welfare Council of Malawi (1995); Ndolvu and Sihlangu (1991). As indicated by Sawyer et al. (1996) the role models of movies, drama and radio are a good source of sexual information for adolescents. Malawi National radio station has three programs focusing on the dangers of teenage sexual activity (Banda et al., 1997), while the Ministry of Health promotes drama groups to pass on sexual information, especially about HIV/AIDS.

Parents

Very little community or cultural consensus exists as to whether it is the primary responsibility of parents, the clergy, school teachers, or other professions to educate students on sexual health issues (Fantin, 1983). Dilorio et al. (1996) and Walters and Walters (1983) contend that it is the primary responsibility of parents to provide their adolescents with accurate sexual information to avoid misinformation from unreliable sources. Walters and Walters (1983) states that families have an important influence on their adolescents' sexuality. Adolescents who obtain sexual information from their parents are less likely to suffer unwanted pregnancies (Baumeister et al., 1995).

However, parents indicated difficulty in providing sexual information to their adolescents (AIDS secretariat, 1994; Dilorio et al., 1996; Walters & Walters, 1983).

In the current study, 28.2% (n = 42) of participants considered their mother as a source of sexual information, ranking her fifth of the 20 possible sources while 16.8% (n = 25) considered their father as a source, ranking him thirteenth (Figure 4). Thornburg (1981) also identified that from a list of eight possible sources of sexual information, adolescents considered their mother third as a source and their father as sixth. Even though parents consider it difficult to discuss sexual issues with their adolescents, mothers are more willing to take up the role. Internationally, mothers are considered to be the family health caretakers (Alcorso & Schofield, 1992; Heller, 1986; WHO, 1994). In Malawi, mothers spend more time in the home environment with children because traditionally, the role of a woman has been to care for the family while fathers undertake paid work away from home (United Nations and Malawi Government, 1992). These circumstances may give rise to more opportunities for mothers to inform children of sexual health issues.

In Malawi, parents are not the primary source of sexual information for their adolescents. Even greater difficulties in talking about sexuality occur between parents and adolescents of opposite sex. Mothers acknowledge it being difficult for them to discuss sexual issues especially with their sons (Dilorio et al., 1996; Walters & Walters, 1983). The current study identified that more girls referred to their mother as a source of sexual information than boys (44.0%, n = 33 and 12.7%, n = 9 respectively) while a similar number of boys and girls referred to their father (18.3%, n =13 and 16%, n = 12 respectively). It can be concluded that boys are at a disadvantage as the communication between a father and son may be limited (Dalorio et al.,1996; Kunene, 1995 & Thornburg, 1981). Even though Tucker (1991) identified that males considered their mothers as the main source of sexual information, communication difficulties between

parent and child especially with the opposite sex, can be even harder in countries like Malawi where the discussion of sexual issues is considered taboo (Chiluzi, 1997; Kunene, 1995; Mathews et al., 1995; Munro et al., 1995; National Family Welfare Council of Malawi, 1995; SARYD, 1997). These circumstances appear to influence adolescents to obtain unreliable information from sources such as peers.

Participants from rural backgrounds were found to seek information from their parents more than their urban counterparts. Thirty three percent of rural and 27.3% of urban adolescents looked to their mother, while respectively 25% and 14.5% looked to their father for sexual information. Working parents in urban areas are less likely to spend time at home with their children. Consequently, urban participants rely upon friends of same sex more than rural dwellers do for advice. Rural parents frequently work with their children which facilitates the opportunity for discussion.

Professionals and Other Field Workers

Professionals and field workers referred to in the study include teachers, health workers, traditional sex counsellors *(anankungwi)* and church members. Of these, church members and health workers were consulted more often than teachers and traditional sex counsellors (Figure 3). Traditional sex counsellors have lost much influence among their pupils. The decrease in popularity of traditional sex counsellors is reiterated in a study by AIDS secretariat (1995). The decline of their popularity coincides with their role in the community being questioned. For example, it has been stated that community problems such as the high rates of teenage pregnancy are being aided by poor advice given to young girls by the *anankungwi* which does not always promote safer sexual and reproductive behaviour (National Safe Motherhood Task Force, 1996). Such information might include how to satisfy a man, rather than promoting safer sexual practices (Munlo et al., 1995).

Church members were ranked seventh as a source of information. In some churches, such as the Presbyterian Church, adolescents undergo counselling sessions soon after puberty (AIDS secretariat, 1995). Held by a church counsellor these sessions take a religious point of view. However, in studies conducted by Ndlovu and Sihlangu (1991) and Thornburg (1981), only a minority of participants surveyed considered the church as a source of sexual information.

Health workers ranked eighth as a source of sexual information. Whilst the current study did not examine different fields within the health profession, Munodafa et al. (1995) identified that student nurses were considered a good source of sexual information. Ndlovu and Sihlangu (1991), Sawyer et al. (1996) and Thornburg (1981) identified doctors as preferred sources of information. However, the availability of doctors in developing countries such as Malawi is limited. Ndlovu and Sihlangu (1991) recommended that other health professionals be provided with opportunities to contribute factual information to the community. A perceived negative attitude of some health workers towards adolescent sexual activity potentially discourages teenagers from seeking their advice and accessing family planning services (Banda et al., 1997). Instead of health workers being seen as a reliable source of advice, adolescents resort to unreliable sources such as friends, from whom they obtain inaccurate and misleading information.

A number of studies have considered teachers as good sources of sexual information (Fantini, 1983; Mellanby et al., 1996; Ndolvu and Sihlangu, 1991; Thornburg, 1981). In the current study, only 16% of the participants considered teachers as a source of sexual information, ranking them 14th of a possible 20. This can be attributed to a lack of sex education programs in Malawian schools (Kunene, 1995; Munlo et al., 1995). The absence of a sexual health education curriculum may prohibit effective discussion between teachers and students. In some instances it may facilitate

the dissemination of inappropriate information. For example, Munlo et al. (1995) identified that some teachers in the northern region of Malawi were instructing adolescents on issues such as appropriate positions during sexual intercourse and how to attract and please their sexual partner instead of teaching them safe sex, developmental changes and self control.

Other Family Members

Other family members that the participants asked for information were grandmother, sister, grandfather, and brother. Little difference was identified in the frequencies of these family members as sources of information. However, extended family members clearly play a part in adolescent sex education. Ndlovu and Sihlangu (1991) also identified family members as playing a major role in adolescent sex education. Likewise, AIDS Secretariat, (1994) identified that parents believed it is the role of grandparents to teach adolescents sexual issues.

It was also found that boys sought information from male family members such as brothers or their grandfather. Virtually no girls referred to their brother for information, while only 9.3% used their grandfather. Similarly, girls sought the advice of female family members such as sisters and grandmothers, while almost no boys referred to their sister as a source of information (Figure 4). Evidently, it is easier for adolescents and family members of the same sex to discuss sexual issues. Dilorio et al. (1996) found similar results. The taboo surrounding the discussion of sexual issues between family members of opposite sex was identified in a number of studies (AIDS secretariat, 1994; Chiluzi, 1997; Munlo, 1995).

Animals

Animals, like drama, were considered a source of information by 18.1% (n = 27) of the participants and ranked 12th (Figure 4). Participants reported to have obtained more sex information from watching animals than they did from their teachers, father, friends of opposite sex or a sex counsellor. In this instance, students learn by observation. If the participants are exposed to village farm animals, they are likely to observe the animal's sexual activity and learn from them. More girls (22.7%, n = 17) indicated animals as a source of information than boys (14.1%, n = 10), (Figure 4) still supporting the idea that girls spend more time at home doing household work than boys. Rural participants observed more animals (25.5%) than their urban counterparts (16.4%). This can be attributed to the increased exposure to farm animals in rural areas. Whilst valuable, this experience cannot educate on safe sexual practices. No other research literature identified adolescent's use of animals as a source of sexual information. However, an article by Gay (1996) contended that adolescents might find it easier to trust and communicate more with animals than human beings.

Summary

This section has discussed the sources of sexual information that participants have drawn upon whilst growing up. It has been identified that the participants obtained sexual information from a wide variety of sources. Friends of same sex and books were ranked the highest while traditional sex counsellors, followed by friends of opposite sex, were last. The participants also referred to their family members of same sex for sexual information more than the opposite sex members. This, however, disadvantaged boys, whose communication with fathers was limited while more girls referred to their mothers. Movies, radio, magazines, newspapers, and dramas were also considered sources of sexual information. However, professionals such as teachers, traditional sex

counsellors and health workers were not considered as major sources of sexual information. Participants also considered animals as a source of sexual knowledge. While boys were found to primarily use their peers, books and other male family members, girls drew their information from a wider number of sources. Similarly, participants from the rural area used a wider variety of sources than their urban counterparts.

Important Sexual Issues

The following section discusses the sexual issues that the participants considered important and of which they would like to know more. The general findings from the list of 14 possible items will be discussed. Factors that affected ranking of the items will follow.

The calculated means from descriptive statistics indicated that the participants considered marriage to be the most important sexual issue that they would like to know more about, followed by the female reproductive system, abstinence then sexually transmittable diseases (Table 12). From these results, it is evident that a disparity exists between the anticipated needs of the participants by adults and the information they seek. The participants were more concerned with marriage and the female reproductive system than HIV/AIDS, STDs or pregnancy which are considered major problems resulting from teenage sexual activity (Banda et al., 1997; Fantini, 1983).

Abstinence, rated third, is a means of preventing these problems, which indicates the participants understood the importance of abstinence. The Malawian culture, like many African cultures have encouraged their adolescents to 'say no' to pre-marital sex (Chiluzi, 1997; Mathews et al., 1995). This is contrary to practice as many adolescents are sexually active from a young age (Banda et al., 1997; Chiluzi, 1997, Dilorio et al., 1996; Mathews et al., 1995; Ndovi, 1996). However, Schwartz (1996) states that over-

emphasis of abstinence often results in the omission of safe sex practices such as condom use and responsible sexual decision making. The participants in the current study ranked other forms of safe sex practices such as contraception seventh while masturbation was ranked ninth. Use of condoms is one form of contraception, which also acts as a means of preventing the spread of AIDS/HIV infection and other STDs (Schwartz, 1996). Participants in a study conducted by O'Hara et al. (1996) felt their friends and families would think it was okay if they used condoms during a sexual encounter. However, personal attitudes toward condoms, social norms and availability of condoms are factors that affect use of condoms among adolescents (Keller et al. 1996; Schaalma et al., 1993). In the current study, participants indicated interest in using condoms but reported not being allowed to purchase them because they are considered minors, which constituted a barrier to practicing safe sex.

Even though masturbation is considered taboo in this culture, the participants showed interest in the subject. Lidster and Horsburgh (1994) consider masturbation a common human practice and a safer avenue through which the adolescents can identify their sexual self privately. The conclusions of Lidster and Horsburgh (1994) are reached by a number of researchers (Guang, 1997; Schuster et al., 1996; Feldman et al., 1997; Hsu et al., 1997) who all identified that masturbation is a common practice among adolescents.

Despite 38.9% of the participants having engaged in sexual intercourse, it was found that sexual intercourse was ranked 11^{th} as an issue on which the participant's wanted more information (mean = 2.96, SD = 1.59). Participants were more interested in consequences of sexual intercourse such as STDs and pregnancy, than the sexual act itself. The finding contrasts that of Kunene (1995) who found that adolescents considered sexual intercourse to be of primary importance.

Sexual abuse and rape were ranked 12th out of 14 (mean = 2.68, SD = 1.61). Fantini (1983), however considered rape as one of the major health concerns among adolescents. Findings of the current study indicate that the participants did not acknowledge the presence of rape in the community. In most Malawian tribes it is expected that a woman should respond positively to a man's sexual desires (AIDS secretariat, 1995). This relates to the findings of Sawyer et al. (1993) who identified that a majority of boys believed girls give misleading information, which leads to rape. In the AIDS Secretariat (1995) study, although boys admitted raping girls who did not respond to their sexual demands, parents denied the existence of rape.

Homosexuality was also considered one of the least important sexual issues. In most African cultures, homosexuality is considered a sin (Mathews et al., 1995). The adolescents may consequently deny the need to understand the issues surrounding homosexuality.

Fisi, the act of the man who traditionally breaks a girl's hymen after puberty through sexual intercourse and male circumcision were ranked least important. Male circumcision is mainly practised among the Yao tribe, and as the study comprised more Chewa and Ngoni participants, this might have influenced the findings. The practice of 'fisi' occurs mainly among the Chewa tribe (Gwengwe, 1974). The findings of the current study might be attributed to educational background of parents. Parental education can influence the traditional values, customs and norms that the children follow. While the act might still remain a common practice among the rural community, it did not have significant influence on the sample.

Out of the demographic factors studied, gender was of most interest, as both male and female participants ranked items almost identically. Boys considered female reproduction as most important followed by marriage, abstinence, STDs, male reproduction, then birth control. The same pattern occurred for girls, with marriage first.

Kunene (1995) also identified that girls considered marriage to be the most important sexual issue. These findings suggest that the sexual educational needs for both boys and girls are similar. Despite this, girls indicated greater interest in the menstrual cycle. Mothers who discuss sexual issues with their daughters consider menstruation not as a sexual issue, but as a health issue (Dilorio et al., 1996). This can probably act as a means through which the mothers obtain courage to discuss menstruation with their female adolescents. Adolescent girls then seek menstrual cycle information at a critical developmental stage in puberty that boys do not experience.

Comfort in Discussing Sexual Issues

The following section will cover factors that participants identified as affecting their ability to discuss sexual issues. Firstly, the participant's comfort in discussing sexual issues with different community members will be discussed followed by their comfort discussing specific sexual issues with classmates. This will be followed by situations in which the participants can discuss sexual issues and use of condoms. Finally, modes of discussion will be examined.

Discussing Sexual Issues with Community Members.

Male participants indicated that they were most comfortable discussing most sexual issues with friends of same sex, while female participants could talk about almost anything to either males or females. This finding is somewhat similar to that of Lear (1995) who found that there were explicit discussions about sexual issues among friends of same sex to the extent that they, especially girls, monitored each other's sexual behaviour. Gay et al. (1992) reported that peer group is the most exciting group with whom adolescents communicate as they explore their hopes, fantasies and ideas. Sexual partners are also amongst the peer group. Even though participants did not consider

their sexual partner as a major source of sexual information, they felt they could comfortably discuss sexual issues with them (mean = 4.23, SD = 1.01). Sexual partners are often peers and so the participants develop trust in their peers (Gay et al.,1992). This supports the finding of Lock et al. (1998) who identified that developing trust was the core variable for sexual communication for both men and women. While women initiate safe sex discussions, men are willing to continue and engage in such conversation (Diclemente, 1991; Lock et al., 1998). The AIDS secretariat (1994) and SARYD (1997) contend that although some girls have sexual activity with older men, in most cases adolescents have sexual partners of their own age. Peers remain the most important people with whom the participants can comfortably discuss sexual issues, regardless of the quality of information they obtain.

The participants also felt comfortable discussing sexual issues with health workers, even though health workers had been considered a source of least sexual information. Clearly, the participants understand that one role of health personnel is to provide health information to the community (National Welfare Council of Malawi, 1995). However, little contact between health workers and adolescents in Malawi seems to exist. Services that focus on adolescents, such as school health programmes, adolescent clinics and adolescent-counselling services are virtually non-existent. Instead, the adolescents consult health personnel when they already have a health problem requiring medical attention. Participants understand the role of health workers and consider them to be one of the most important people with whom they could easily discuss sexual issues.

Contact between adolescents, sex counsellors and teachers regarding sexual issues is similarly limited. Services that facilitate contact, such as sex education programmes in schools do not exist in Malawi (Banda et al., 1997; Chiluzi, 1997; Munro et al., 1995). The participants were therefore not very comfortable discussing

sexual issues with these individuals. The participants did not consider these sex counsellors and teachers as major sources of sexual information whilst growing up.

The participants also felt they could not comfortably discuss sexual issues with their parents despite mothers having been considered one of the major sources of sexual information. While mothers do provide sexual information to their children, they are perhaps not free to conduct the discussion comfortably. This finding supports that of American researchers Dilorio et al. (1996) who identified that mothers were not comfortable discussing sexual issues with adolescents, especially boys. The participant's in Dilorio's study also identified that boys were not as open as girls during such a discussion. Mothers in Dilorio's study recommended that the discussion be initiated when children are young as mothers felt they could comfortably educate children younger than adolescents. Participants in a study by the AIDS secretariat (1994) made a similar suggestion. Gay (1992) also supports this, stating that within the family, talking with adolescents is difficult for parents. However, while parents identified difficulty discussing sexual issues with adolescents, the adolescents felt they could approach their parents. Comments provided by some participants in the current study indicated desire, concern, worry or confusion over why their parents did not discuss sexual issues with them. Similar findings were identified by Kau (1991), Kunene, (1995) and SARYD (1997). Participants in these studies believed they could approach their parents regarding a sexual issue but experienced unwillingness on their parent's behalf. This in turn influences the adolescents to become uncomfortable discussing sexual issues with their parents. Gay (1992) suggested that while it is difficult at times for adolescents to talk to their parents, instead, other family members could be approached.

Of other family members in the current study, the participants felt comfortable discussing sexual issues with their grandmother while they remained neutral about

discussing sexual issues with their sisters and brothers. Grandparents, especially grandmothers have traditionally been entrusted with the responsibility of educating their granddaughters regarding sexual issues (AIDS secretariat, 1994). This would influence grandchildren, especially grand daughters, to be more comfortable discussing sexual issues with their grandmothers. Boys are expected to turn to their grandfather, however the participants indicated discomfort discussing sexual issues with them. Instead, boys resort to their peers and books as sources of information. The participants remained neutral about discussing sexual issues with brothers and sisters. Siblings of a similar age range function as peers with whom they spend time and are more likely to comfortably discuss sexual issues.

Church members had been considered one source of sexual information, however the participants felt they could not comfortably discuss sexual issues with them. While church members might provide information based on their religious beliefs, they perhaps offer no in-depth discussions into issues of interest to the adolescents. Mathews et al. (1995) identified that the Islamic religion considers it taboo to discuss sexual issues with adolescents. According to the AIDS secretariat (1994), Presbyterian women hold sexual discussions with girls soon after puberty. This might mean that the church members chosen to disseminate information could affect how comfortably an adolescent would feel discussing sexual issues with them.

This section has discussed individuals in the community with whom participants feel comfortable discussing sexual issues. It has been found that friend of same sex and sexual partner are the most significant individuals with whom the participants could comfortably discuss sexual issues. While little contact between health workers and adolescents exist, participants felt they would be more comfortable discussing sexual issues with health workers more than with parents or other community members.

Gender was the only demographic factor that influenced the participant's choice of community members.

Classmates

Male participants were significantly more comfortable discussing most sexual issues listed with same sex friends (menstrual cycle, $F(1, 118) = 6.096$, $p = .012$; conception, $F(1, 109) = 7.115$, $p = .009$; sexual intercourse, $F(1, 130) = 41.393$, $p = .000$; pregnancy, $F(1, 129) = 8.464$, $p = .004$; STDs, $F(1, 129) = 5.538$, $p = .022$; masturbation, $F(1, 111) = 6.221$, $p = .014$; male reproductive system, $F(1, 112) = 24.168$, $p = .000$; female reproductive system, $F(1, 111) = 27.565$, $p = .000$; circumcision, $F(1, 108) = 5.223$, $p = .024$) except childbirth and homosexuality. Females were significantly more comfortable talking to females only about the menstrual cycle ($F(1, 118) = 11.170$, $p = .001$). They would talk to males and females with equal comfort about any to the other listed topics.

While sexual intercourse was not considered an important sexual issue, boys felt they could comfortably discuss it with their male classmates. This finding supports that of Li and Davey (1996) who identified a belief that boys were more interested in sex than girls. When initiating discussion of a sexual nature with a female classmate, the pattern changed. Boys felt more comfortable discussing STDs with girls, followed by pregnancy (Table 14), which indicates that boys consider these issues to be of primary concern when talking to girls or the boys thought these issues were important to the girls.

Girls were more comfortable discussing menstruation (Table 15). Girls comfortably discussed menstruation probably because it is not considered a sexual but a health issue (Dilorio et al., 1996). There was a trend towards boys and girls feeling comfortable discussing STDs with each other probably because STDs, especially

HIV/AIDS, is widely talked of by the media and schools (Banda et al., 1997). This might have influenced the participants to look at STDs/HIV/AIDS not just as a sexual but also as a health issue, making it easy to discuss. The least talked of subject among classmates remained circumcision, homosexuality and masturbation. Adolescents may feel uncomfortable discussing circumcision as only a minority of Malawian tribes continue this traditional practice or it just wasn't important to the participants. Homosexuality and masturbation are considered taboo practices in Malawi.

Situations in Which Participants can Discuss Sexual Issues

The following discussion will examine situations in which the participants could discuss sexual issues. It was found that 75.8% of participants felt they could discuss a sexual issue to assist a friend in need. Participants felt it to be their primary responsibility to help one another when there is need (Table 16). In addition, Lear (1995) identified that friends monitor one another's sexual behaviour and advice each other according to need. Clearly, participants rely on one another for sexual advice and comfortably speak about certain sexual issues with their peers. Furthermore, 66.4% (n = 99) of the participants considered that they could discuss a sexual issue when they were seeking advice. This advice is more likely to come from the individuals with whom they have established trust and so feel comfortable discussing sexual issues. Lear (1995) and Lock et al. (1998) also identified that trust was central to the instigation of a sexual discussion.

While the participants did not consider themselves shy or uncomfortable discussing sexual issues, they recognized that they were not comfortable discussing sexual matters in all circumstances. Participants had limited sources of information and indicated a degree of discomfort discussing sexual issues with most community

members. However, they did not consider themselves shy discussing sexual issues with trusted peers especially those in need

Condoms and Contraception

The participants were slightly comfortable talking to a sexual partner about using a condom or contraception. Participants had reported being more comfortable discussing sexual issues with a sexual partner, more than with a health worker. Discussing the use of a condom/contraceptive is more specific than a generic discussion of sexual issues. As a result, the participants are at risk of not easily negotiating safe sex. Practising safe sex involves negotiations and open communication about sexual desires (Lear, 1995). Both boys and girls remained neutral about the idea of discussing contraception with a sexual partner. This finding did not support those of American researchers Diclemente (1991); Jadack et al. (1995); Lock et al. (1998) and Schaalma et al. (1993) all of whom identified that girls were more willing to ask their sexual partners about contraceptive use. Girls in the current study however, may have experienced difficulty negotiating contraceptive use or safe sex (SARYD, 1997).

The participants were not comfortable about purchasing condoms (mean 3.45, SD = 1.53). No statistical difference existed between boys and girls regarding how comfortably they would be buying condoms. This finding does not support that of Diclemente (1991) and Shaalma et al. (1993) both of whom identified that their boys were more comfortable buying condoms than girls. The result however, supports that of Lear (1995) who had identified that girls were not comfortable buying condoms. These findings indicate the possibility that the sexually active participants had not used a condom or any form of contraception during their sexual encounter. Jadack et al. (1995) also identified that a majority of sexually active teenagers had not used a condom during sexual encounters. According to comments given by some participants, shopkeepers

refuse to sell condoms to minors. Consequently, adolescents felt they had no option but to continue without contraception. These comments are reiterated by Banda et al. (1997) who indicated that in some instances medical personnel in Malawi have a negative attitude towards providing adolescents with condoms or contraceptives. The comments provided by participants in the current research are indicative of prevailing community attitudes toward adolescent sexual activity in Malawi. The consequences of the adolescent's failure to negotiate and practice safe sex are usually rape, teenage pregnancy, STDs and HIV/AIDS, all of which are major sexual health problems resulting from teenage sexual activity (Fantini, 1983). That participants are not comfortable negotiating safe sex indicates a need within the Malawian community to increase adolescent's ability to discuss and negotiate safe sex by changing community attitudes and taboos.

Mode of Communication

The participants discussed sexual issues either face to face, written or with telephones, all of which are forms of communication. Face to face dialogue was the most frequently used mode of communication utilised by 72% (n = 108) of the participants. A similar number of boys and girls indicated a preference for face to face communication. Such discussions are most likely to be with a friend of same sex as opposed to a sexual partner. However, Gay (1992) contends that talking via machines, such as telephones, computers or writing letters makes adolescents feel safer than talking face to face. In the current study, the participants did not utilise machines such as telephones (4.0% n = 6) as the expenses and availability of these facilities is almost non-existent amongst secondary school students. Access to telecommunication services in rural Malawi is poor. Of those who used written communication, there were more girls (58.1%, n = 18) than boys (41.9%, n = 13). This might either indicate shyness in

girls to communicate face to face or that they have greater access to writing facilities such as postage stamps and paper or that letter writing is considered to be a feminine activity.

Participants in the current study indicate comfort talking with friends however information, skills and encouragement are required to facilitate improved discussion and negotiation of sexual issues with sexual partners. Sawyer et al. (1993) and Lear (1995) identified that their subjects used non-verbal communications with their sexual partners, especially with early sexual relationships. Body language, eye contact and gestures are non-verbal means through which people communicate desires and intentions. Non-verbal communication may stimulate verbal communication. Lock et al. (1998) contends that sexual talk amongst friends makes it easier for adolescents to discuss sexual issues with sexual partners.

Summary

This section has discussed the possible sexual topics that the participants considered important and the participant's degree of comfort in discussing sexual issues. The research found that marriage, followed by female reproductive system then abstinence were considered very important and the participants would like to know more about these. Circumcision and 'fisi,' which are mainly traditional practices, were least considered among the participants. However, ranking the importance of these topics was not affected by demographic factors including gender.

A majority of participants felt comfortable discussing sexual issues with friends of same sex, followed by sexual partners, then health workers. Even though the participants could discuss sexual issues with a sexual partner, they could not comfortably discuss the use of a condom with their sexual partner. This indicates that the participants had limited ability negotiating safe sexual practices. Failure to discuss

sexual issues with a friend of opposite sex might also influence their inability to discuss intimate sexual issues with sexual partners. When discussing with a friend of the opposite sex, STDs was the main topic that the participants were comfortable discussing. Among same sex peers, girls comfortably discussed menstrual cycle, while boys talked about sexual intercourse. Contraception was not a preferred topic by either gender.

Application of the Study to SCT

The aim of this study was to explore and describe the factors that a group of adolescents reported as affecting their ability to discuss sexual activity. In the study, the individual was a secondary school adolescent, male or female, aged between 12-18 years, having reached puberty and originating from different demographic backgrounds. The adolescent was subject to internal as well as external forces that could affect their ability to perform the required behaviour, which was discussing sexual issues. These forces included demographic factors, past sexual experiences and sources of knowledge. Findings however indicated that other than gender, demographic variables did not have a significant influence on the adolescent's ability to discuss sexual issues. Past sexual experiences as well as sources of sexual information did not affect the adolescent's ability to discuss sexual issues.

Perceived self-efficacy, which is the person's belief that the required behaviour can be successfully performed to produce a desired outcome, was the main determinant of the adolescent's ability to discuss sexual issues. Perceived self-efficacy influenced whether or not one could discuss sexual issues, when they could discuss, why they could do so, with whom, how and which issues they could discuss. The adolescents felt they could discuss sexual issues primarily with friends of same sex when they thought friends required help.

The outcome expectations from the behaviour (discussing sexual issues) are the ability to practice safe sex or abstinence. The perceived benefits of practising safe sex and abstinence are that the adolescent can avoid unwanted pregnancies, STDs and HIV/AIDS. If the adolescent is practising safe sex, he/she can also have the perceived benefit of enjoying sexual pleasure. One form of practising safe sex is use of condoms. Even though condoms are promoted for prevention of unwanted pregnancies, STDs and HIV/AIDS, inadequate knowledge of how to use them may be a perceived barrier. Where adolescents cannot effectively use condoms, potentially they may end up acquiring the conditions resulting from sexual activity. The adolescents had expressed lack of interest in knowing more about contraception, even though they had considered STDs as an important sexual issue. For some participants, the risk of contacting these sexual conditions was a barrier towards being sexually active. Social disapproval was another barrier toward use of condoms. Some adolescents indicated that shopkeepers would not let them purchase condoms because they were considered to be minors. Medical personnel, parents and the larger society do not encourage sexual activity among adolescents. Perceived social influences and norms is then another variable predictor in the purchase and effective use of condoms.

Bandura (1986) considers an outcome as the consequences of an act. In the study, the consequences of the adolescent's ability to discuss sexual issues will hopefully lead to decreased teenage pregnancy and STDs/HIV/AIDS rates among the adolescents. In so doing, adolescent's health will be improved and maintained so that the adolescents may become productive citizens of the nation. Outcomes were not the focus of this study. The SCT guided the development of the study; it was never the intention to test the SCT. Findings from this study may provide a baseline for further research.

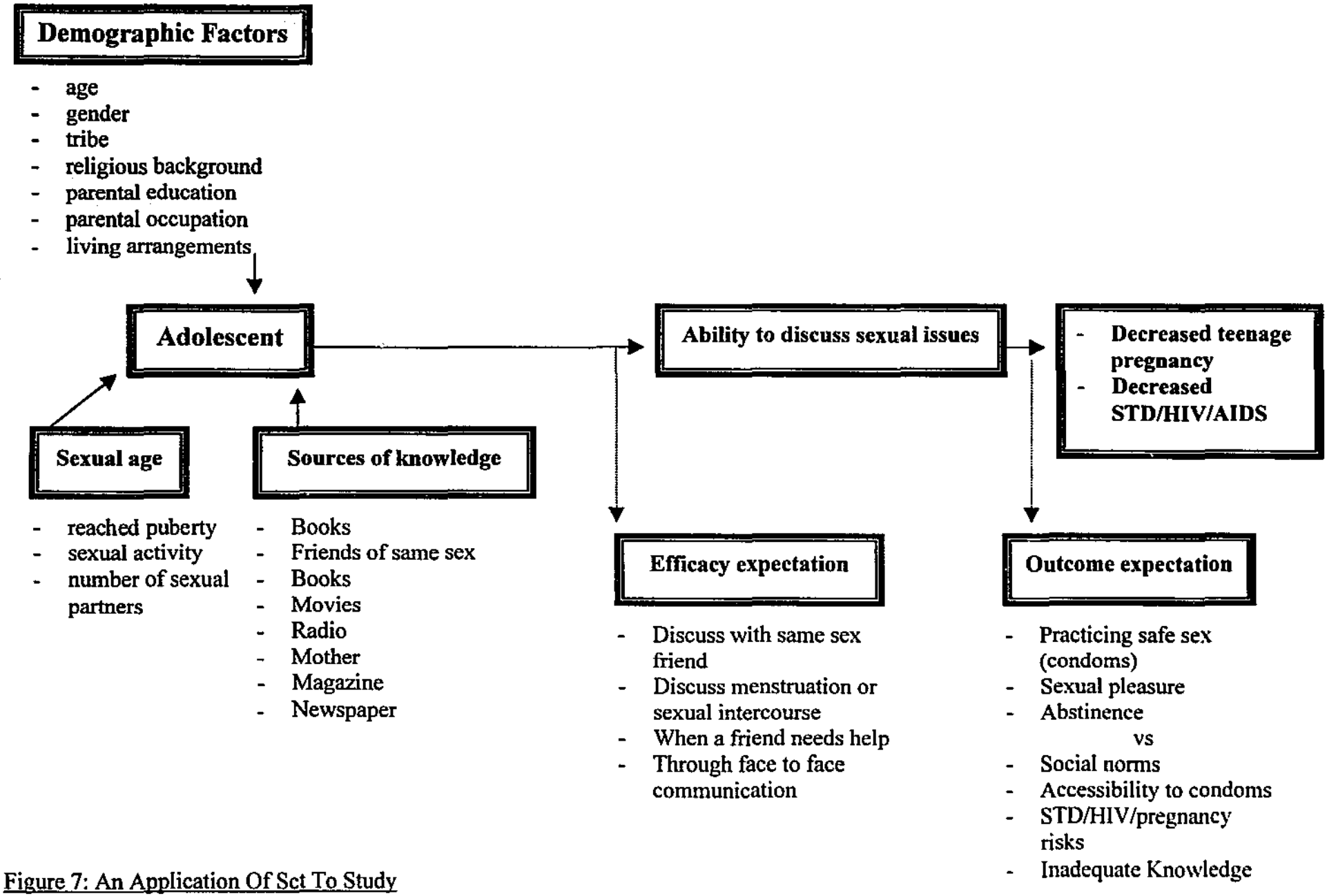

Figure 7: An Application Of Sct To Study

Strengths of the Study

1. While the study of teenage sexual activity has been considered an important issue requiring immediate attention, little research has been conducted in this area. This study appears to be unique, focusing on the sexual life of a group of adolescents in Malawi, particularly their sources of sexual information and comfort in discussing sexual issues. The study has provided an important foundation on which other studies can be based.
2. The subject under study was of interest and essential to the participants and teachers. Most of the teachers who displayed interest in the study were parents themselves. This is the reason why some participants provided comments even though the questionnaire did not require comments. Teachers also requested copies of the questionnaire for personal use.
3. The questionnaire was developed to suit the social, cultural and economic standards of this section of the Malawian community.
4. The questionnaire was tested for content validity and reliability prior to distribution amongst the sample.

Limitations of the Study

1. The target population was adolescents from co-educational secondary schools in both streams (form one - four). Only form two and four students were available as the others were still on holiday. This factor limits the ability to generalise the results across other students from co-educational secondary school.
2 The participants were mainly from the two tribes of Chewa and Ngoni. This also limits the ability to generalise the results to students from other tribes in Malawi.
3 The sample population of the study originated mainly from the urban sector, which is comprised of more educated parents. This does not reflect the normal population

distribution of Malawi where the majority of the people live in rural areas and are less uneducated. This limits the ability to generalise the results across the wider Malawian population.

4 The questionnaire was developed in English because Malawian secondary school students are taught and encouraged to speak English as opposed to the national language, Chichewa. However, the use of English alone in this questionnaire might have limited the understanding of some words among the students.

5 The taboo surrounding the discussion of sexual issues might have limited the response rate to some questions. This was reflected in questions that asked participants to recall personal sexual experiences such as number of sexual partners and age they had their first sexual intercourse.

Summary

This section summarises the study findings regarding the factors that co-educational secondary school adolescents of Mchinji and Lilongwe districts identify as affecting their ability to discuss sexual issues. It has been identified that the adolescents aged between 14 and 18 years of age and had all reached puberty. By the time puberty was reached, some were already sexually active in which case sexual activity was initiated at an age as early as 10 years of age. Sexual information was obtained from a number of sources but friends of same sex were the most outstanding sources. Even though the participants felt they are not shy discussing sexual issues, they were mainly comfortable discussing sexual issues with their friends of same sex as opposed to sexual partners, health workers, friend of opposite sex, parents and other community members. They were uncomfortable discussing condom use with a sexual partner and could not comfortably purchase condoms.

Face to face communication was the communication mode of choice with the people they comfortably discussed sexual issues. The participants preferred to discuss menstruation amongst girls while boys discussed sexual intercourse while STDs were the preferred topic if the discussion involved both genders. The participants however thought marriage was the most important sexual issue that they would like to know more about especially for girls.

Demographic factors that were examined to identify their effect on the participant's comfort in discussing sexual issues were gender, age, school, religion, involvement in religious activities, family background and the participant's sexual life. These factors then did not affect the participant's sexual life and their comfort in discussing sexual issues other than gender and age. This indicates that gender and age were the most significant demographic variables that affected the participant's sexual activity and comfort in discussing sexual issues.

Chapter Six

Implications, Recommendations for Practice and Conclusion

This chapter outlines the implications that the study may have for community nursing practice, education, management and research. The study may also have implications for education planners, community leaders and parents. The conclusions from the research can be applied to multiple sectors of the community as the students are in constant interaction with these members of their society. The Social Cognitive Theory will be used in outlining the study implications.

Implications and Recommendations for Community Nursing Practice

The implications that can be made for community nursing practice are that first, sexuality education should be initiated even before the adolescent reaches puberty, probably around 10 years of age or less. Some adolescents become sexually active even before puberty is reached. Sex education at an early age will act as a source of sexual knowledge for the individual, which can influence the adolescent's values, beliefs, self-efficacy and safe sexual life. Safe adolescent sexual behaviour can ensure lower rates of teenage pregnancy, HIV/AIDS and other STDs, leading to a healthier community.

Secondly, community nurses should help the community overcome issues considered taboo, such as sexual discussions between parents and adolescents. The community needs to realize that adolescents are sexually active and are likely to endure the problems associated with sexual activity if they are not provided with reliable sources of correct information. Reliable sources of sexuality education, such as parents and health workers, will ensure the adolescent obtains adequate sexual knowledge to positively influence the individual's self-efficacy, resulting in safer sexual behaviour.

The community that the adolescents live in then needs to realise that it is okay for adolescents to buy condoms in order to ensure that they practice safe sex.

Community nurses should act as change agents by helping parents realize that their children are willing to obtain sexual information from them. Parents then should spend some time with the adolescents discussing sexual issues. Through programmes set by community nurses in collaboration with community members, male community members should be encouraged to educate their male adolescents on sexual health issues. Female community members should likewise educate female adolescents.

Lastly, health workers should ensure that confidentiality is maintained in regard to the discussions they hold with adolescents. This would enable adolescent's trust, which is likely to initiate better communication. Trust and better communication with health workers would facilitate adequate sexual knowledge for the adolescents, which can positively affect their sexual behaviour. It would be ideal if programmes that focus on adolescent health and well being are introduced in the Malawi. This would enhance contact and facilitate trusting relationships between the adolescents and health workers.

Education Planners.

Sexuality education should be included in the school curriculum because the adolescents identified a lack of sexual knowledge as one of their major concerns. The curriculum should include those issues that can help the adolescents make safe sexual decisions, as well as those that are of great interest to them. This will ensure that the adolescent obtains the correct knowledge that may positively influence values, beliefs and self-efficacy to undertake safe sexual behaviuor.

If sexuality education were to be provided in schools, a health worker or sex counsellor would be appropriate in this role. The perceived benefit of utilizing an individual with whom adolescents feel at ease is that the adolescents are more likely to

comfortably and openly discuss sexual issues with them. Obtaining information from an individual with whom they are comfortable is more likely to positively influence sexual behaviour, leading to lower rates of teenage pregnancy, STDs and HIV/AIDS.

Community Leaders.

There is need for the Malawaian community to realize that adolescents are sexually active. The adolescents need support from the community, such as encouragement to buy and use condoms, so that safe sexual behaviour can be practised. Community members such as shopkeepers should allow adolescents to purchase condoms.

Parents, teachers and the wider community should realize that sex education is part of health care and that it is not aimed at encouraging sexual activity or promiscuity. Providing adolescents with adequate sexual knowledge can influence positive self-efficacy and result in safe sexual behaviour. The community then should acknowledge the perceived benefit of providing adolescents with sex education that promotes safe sexual behavior.

Church members should continue providing adolescents with sexual information, however the members providing the information should be those with whom adolescents can comfortably discuss sexual issues. The content should also be of significance to the adolescents and help them make decisions about sexual activity.

Suggestions for Future Research

As a number of adolescents became sexually active prior to reaching puberty and others were not sexually active, a study could be undertaken regarding adolescent's attitudes and practices towards sexual activity. This would provide information

regarding the motivators towards being a sexually active individual and the practices undertaken to ensure safe sex.

Research into the knowledge that adolescents possess regarding sexual issues they considered important, such as marriage, as well as those they considered not very important, such as sexual abuse and rape would also be valuable. This information could act as a basis for future sex education programmes.

Participants indicated varying degrees of comfort discussing sexual health issues with community members, including parents. As a result, research into community efforts to ensure safe sex practices and community attitudes would be valuable. It could also be necessary to study the sources of sexual information that the community considers ideal for their adolescents, the nature of the information, as well as the age at which the adolescents request such information.

Considering the small sample size of the current study, it would be beneficial to replicate the study on a larger scale. An extended study could encompass all three regions of the country, involve both co-educational as well non co-educational secondary schools and include participants of different social backgrounds as well as those who have not managed to get to secondary schools.

Conclusion

This research studied factors that a group of Malawian adolescents reported as affecting their ability to discuss sexual issues. The participants were identified as being adolescents between the ages of 14-18, and from co-educational secondary schools in Lilongwe and Mchinji. Slightly less than half of the participants were sexually active which indicate that in Malawi, as in other countries throughout the world, adolescents engage in premarital sex. Some of the participants initiated sexual activity before

puberty was reached, which indicates that similar to adolescents in most countries, Malawian adolescents also initiate sexual activity at an early age.

It is important to note that in Malawi, discussion of sexual issues is traditionally considered taboo. Studies conducted in developed countries identified parents, schoolteachers and health workers as important sources of sexual information for adolescents. However, in the current study, adolescents reported that friends of the same sex and books were their major source of sexual information, regardless of gender, age, tribe or other demographic factors. Parents, schoolteachers and health workers rarely provide sexual information to Malawian adolescents. As a result, the adolescents felt comfortable discussing sexual issues with friends of same sex as opposed to most community members including sexual partners. This indicates that adolescents will obtain sexual information from those with whom they are comfortable.

The adolescents also reported that they felt uncomfortable purchasing condoms or discussing condom use with sexual partners. Such lack of comfort can make it difficult for them to negotiate safe sexual practices. However, the adolescents reported less interest in learning about safe-sex practices such as contraception and masturbation. Instead, they were more interested in marriage. This indicates that the adolescents may have little interest in knowing the importance of learning more about safe sexual practices.

These findings suggest the need for sexuality education in Malawi, be it at home, school, church or a health facility. The education needs to be initiated before puberty. In addition to teaching adolescents what they would like to know, emphasis should be on information that would enable them to make informed sexual decisions, negotiate sexual activity, practice safe sex or abstain from teenage sexual activity. Such education would enable the secondary school adolescents to continue their education and avoid unplanned pregnancies, STDs, and/or HIV/AIDS.

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APPENDIX A

INTERVIEW SCHEDULE

A STUDY ON FACTORS THAT IN-SCHOOL ADOLESCENTS REPORT AS AFFECTING THEIR ABILITY TO DISCUSS SEXUALITY

A. DEMOGRAPHIC DATA

Please tick (✓) the response that best describes you.

1. Sex

   (a) Male _____ ☐

   (b) Female _____ ☐

2. Age

   Please Specify age in years _____

3. Number of children in you family

   (a) One _____ ☐

   (b) Two _____ ☐

   (c) Three _____ ☐

   (d) Four or more (Please Specify Number) _____

4. Your position in the family

   (a) First born _____ ☐

   (b) Second born _____ ☐

   (c) Third born _____ ☐

   (d) Fourth and above (Please Specify Number) _____

5. Age when you:

   i. **If girl** - started having monthly periods
   ii. **If boy** - development of deep voice and having wet dreams

   (a) Please specify age in years _____

(b) Have not yet

1. Started having monthly period (girls) _____ ☐
11. Development of deep voice and having wet dreams (boys) _____ ☐

6. Where did you mainly grow up?

(a) Urban, eg. City _____ ☐

(b) Small town, eg Mission station or trading center _____ ☐

(c) Rural, eg village _____ ☐

7. What is your tribe?

(a) Chewa _____ ☐

(b) Ngoni _____ ☐

(c) Tumbuka _____ ☐

(d) Yao _____ ☐

(e) Lomwe _____ ☐

(f) Sena _____ ☐

(g) Other (Please Specify) _____

8. What is the religion in which you grew up?

(a) Presbyterian (CCAP) _____ ☐

(b) Roman Catholic _____ ☐

(c) Anglican _____ ☐

(d) Muslim _____ ☐

(e) Pentecostal _____ ☐

(f) None _____ ☐

(g) Other (Please Specify) _____

9. How regular is your involvement in religious group activities?

(a) Regularly, e.g once a week _____ ☐
(b) Occasionally, e.g once a month _____ ☐
(c) Do not attend _____ ☐
(d) Other (Please Specify) _____ ☐

10. With whom do you mainly live? (The person mainly responsible for looking after you).

(a) Family of origin _____ ☐
(b) In a dormitory (with friends) _____ ☐
(c) With a sister _____ ☐
(d) With a brother _____ ☐
(e) With an uncle _____ ☐
(f) With an aunt _____ ☐
(g) Other (Please Specify) _____

11. What is the status of the person/ people you stay with?

(a) Married and both stay together _____ ☐
(b) Single mother (never married) _____ ☐
(c) Single father (never married) _____ ☐
(d) Single mother (divorced) _____ ☐
(e) Single father (divorced) _____ ☐
(f) Single mother (widowed) _____ ☐
(g) Single father (widowed) _____ ☐
(h) Other (Please Specify) _____

12. What is the highest education level of your mother?

(a) Standard 1 – 5 _____ ☐
(b) Standard 6 – 8 _____ ☐
(c) Form 1 – 2 _____ ☐
(d) Form 3 – 4 _____ ☐
(e) Tertiary Education (Above Secondary Education) _____ ☐
(f) Did not have a formal education _____ ☐
(g) Do not know _____ ☐

13. What is the highest education level of your father?

(a) Standard 1 – 5 _____ ☐
(b) Standard 6 – 8 _____ ☐
(c) Form 1 – 2 _____ ☐
(d) Form 3 – 4 _____ ☐
(e) Tertiary Education (Above Secondary Education) _____ ☐
(f) Did not have a formal education _____ ☐
(g) Don't know _____ ☐

If you answered Questions 12 and 13, move to Q 15.

14. If you don't live with your parents, what is the highest education level of the person you live?

(a) Primary school _____ ☐
(b) Form 1 –2 _____ ☐
(c) Form 3 – 4 _____ ☐
(d) Tertiary Education _____ ☐
(e) Don't know _____ ☐

15. What is the occupation of the person/people you live with?

(a) Labourer/cleaner/messenger _____ ☐

(b) Teacher _____ ☐

(c) Doctor _____ ☐

(d) Nurse/any other paramedics _____ ☐

(e) Accountant/lawyer/lecturer _____ ☐

(f) Manager _____ ☐

(g) Farmer _____ ☐

(h) Other (Please Specify) _____ ☐

(i) Do not know _____ ☐

16. In what form are you?

(a) Form 1 _____ ☐

(b) Form 2 _____ ☐

(c) Form 3 _____ ☐

(d) Form 4 _____ ☐

B. SOURCE OF SEXUAL INFORMATION

Indicate the number that best describes you against each of the following responses:

17. From whom or where did you obtain sexual information while growing up? (Tick (✓) only **five main sources of sexual information** from the list below. *Go through the whole list before choosing the five main sources).*

(a) Mother _____ ☐

(b) Father _____ ☐

(c) Grandmother _____ ☐

(d) Grandfather _____ ☐

(e) Sister _____ ☐

(f) Brother _____ ☐

(g) Friend of same sex _____ ☐

(h) Friend of opposite sex _____ ☐

(i) Boyfriend/Girlfriend _____ ☐

(j) Health worker _____ ☐

(k) Member of the church _____ ☐

(l) Counselor _____ ☐

(m) Books _____ ☐

(n) Magazines _____ ☐

(o) Newspapers _____ ☐

(p) Movies/Films _____ ☐

(q) Radio _____ ☐

(r) Teacher _____ ☐

(s) Drama _____ ☐

(t) Seeing animals, eg. Dogs, goats, cattle _____ ☐

(u) Other (Please Specify) _____ ☐

18. Which of the following areas do you consider important and would like to know more about?

For each item below, indicate its level of importance (from not important to very important) by ticking the box that best describes you.
Tick (✓) the response that best describes you.

		Very Important	Important	Not sure	Not Very Important	Not Important
(a)	Pregnancy _____	☐	☐	☐	☐	☐
(b)	Child Birth _____	☐	☐	☐	☐	☐
(c)	Sexual Intercourse _____	☐	☐	☐	☐	☐
(d)	Birth Control _____	☐	☐	☐	☐	☐
(e)	Menstrual Cycle _____	☐	☐	☐	☐	☐
(f)	Sexually transmitted diseases, eg. HIV/Syphilis _____	☐	☐	☐	☐	☐
(g)	Abstinence _____	☐	☐	☐	☐	☐
(h)	Sexual abuse and rape _____	☐	☐	☐	☐	☐
(i)	Masturbation _____	☐	☐	☐	☐	☐
(j)	Circumcision _____	☐	☐	☐	☐	☐
(k)	Marriage					
(l)	"Fisi" (A special man who breaks a girls virginity after puberty _____	☐	☐	☐	☐	☐
(m)	Reproductive systems for males __	☐	☐	☐	☐	☐
(n)	Reproductive system for females _	☐	☐	☐	☐	☐

19. Age you first had sexual intercourse

(a) Please specify age _____ ☐

(b) I have never had sex _____ ☐

If answer to Question 19 is (b), please move to Question 21.

20. If you have had sex, how many partners have you had in the last 12 months?
Please specify number _____

C. COMMUNICATION ABOUT SEXUAL ISSUES

Tick (✓) the box that best describes you to each of the following responses.

(Move to question 21 next page).

21. How comfortable do you feel discussing a sexual issue with the following people? (Let very comfortable indicate lots of information, while not comfortable indicate little or no information). Tick (✓)the response that best describes you.

		Very Comfortable	comfortable	Not sure	Not Very Comfortable	Very Uncomfortable
(a)	Mother _____	☐	☐	☐	☐	☐
(b)	Father _____	☐	☐	☐	☐	☐
(c)	Grandmother _____	☐	☐	☐	☐	☐
(d)	Grandfather _____	☐	☐	☐	☐	☐
(e)	Sister _____	☐	☐	☐	☐	☐
(f)	Brother _____	☐	☐	☐	☐	☐
(g)	Aunt _____	☐	☐	☐	☐	☐
(h)	Uncle _____	☐	☐	☐	☐	☐
(i)	Counselor _____	☐	☐	☐	☐	☐
(j)	Health worker _____	☐	☐	☐	☐	☐
(k)	Friend of same sex _____	☐	☐	☐	☐	☐
(l)	Friend of opposite sex _____	☐	☐	☐	☐	☐
(m)	Boyfriend/Girlfriend _____	☐	☐	☐	☐	☐
(n)	Teacher _____	☐	☐	☐	☐	☐
(o)	Church personnel _____	☐	☐	☐	☐	☐
(p)	Nankungwi (Community sex Counselor _____	☐	☐	☐	☐	☐

22. **If a male friend eg. Classmate** asked you to discuss with him a sexual issue. which area of sexuality would you comfortably discuss?

Please Note

Both boys and girls should answer both of the next questions.
Tick (✔) the box that best describes you to each of the following responses.

		Very Comfortable	Comfortable	Not sure	Not Very Comfortable	Very Uncomfortable
(a)	Menstrual cycle _____	☐	☐	☐	☐	☐
(b)	Conception _____	☐	☐	☐	☐	☐
(c)	Sexual Intercourse _____	☐	☐	☐	☐	☐
(d)	Pregnancy _____	☐	☐	☐	☐	☐
(e)	Child Birth _____	☐	☐	☐	☐	☐
(f)	STD/HIV _____	☐	☐	☐	☐	☐
(g)	Masturbation _____	☐	☐	☐	☐	☐
(h)	Homosexuality _____	☐	☐	☐	☐	☐
(i)	Reproductive organ of male ____	☐	☐	☐	☐	☐
(j)	Reproductive organ of female __	☐	☐	☐	☐	☐
(k)	Circumcision _____	☐	☐	☐	☐	☐

23. If a **female friend e.g a classmate** asked you to discuss with her a sexual issue which area would you comfortably discuss.

Tick (✔) the box that best describes you to each of the following responses.

		Very Comfortable	Comfortable	Not sure	Not Very Comfortable	Very Uncomfortable
(a)	Menstrual cycle _____	☐	☐	☐	☐	☐
(b)	Conception _____	☐	☐	☐	☐	☐
(c)	Sexual Intercourse _____	☐	☐	☐	☐	☐
(d)	Pregnancy _____	☐	☐	☐	☐	☐
(e)	Child birth _____	☐	☐	☐	☐	☐
(f)	STD/HIV _____	☐	☐	☐	☐	☐
(g)	Masturbation _____	☐	☐	☐	☐	☐
(h)	Homosexuality _____	☐	☐	☐	☐	☐
(i)	Reproductive organs of male _____	☐	☐	☐	☐	☐
(j)	Reproductive organs of female _____	☐	☐	☐	☐	☐
(k)	Circumcision _____	☐	☐	☐	☐	☐

24. In what situation can you discuss sexual a issue?
Tick (✔) either True or False to each of the following responses.

(a)	Only if I like the topic	True ☐	False ☐
(b)	Only when asked	True ☐	False ☐
(c)	Only in a group discussion	True ☐	False ☐
(d)	When seeking for advice	True ☐	False ☐
(e)	When I feel there is need to help a friend	True ☐	False ☐
(f)	If it is someone I like	True ☐	False ☐
(g)	I can discuss under any condition	True ☐	False ☐
(h)	I am shy, hence I can not discuss in any situation.	True ☐	False ☐

25. What mode of communication can you comfortably use to discuss a sexual issue?

(a) Face to face _____ ☐

(b) Telephone _____ ☐

(c) Written _____ ☐

25. If you were to have sexual intercourse, would you feel comfortable?
(Tick (✓) the response that best describes you for the following situations)

		Very Comfortable	Comfortable	Not sure	Not Very Comfortable	Very Uncomfortable
(a)	Buying a condom _____	☐	☐	☐	☐	☐
(b)	Talking with your partner about using a condom/contraceptive _____	☐	☐	☐	☐	☐
(c)	Talking to a health personnel about using condom/contraception _____	☐	☐	☐	☐	☐
(d)	Talking to a friend of same sex about using condom/contraception _____	☐	☐	☐	☐	☐
(e)	Talking to a friend of opposite sex about using condom/contraception _____	☐	☐	☐	☐	☐

THANK YOU FOR RESPONDING

Appendix B

Letters

Letter to Panel of Experts for Content Validity

From: Susan Kanyanda Geloo (Mrs).

Edith Cowan University, Perth, W. Australia.

Phone: (08) 9358 2440 (H)

Email: sgeloo@student.cowan.edu.au

Re: Request to Assess Content Validity of a Research Questionnaire.

I am a Master of Science in nursing student at Edith Cowan University, Western Australia. I am writing a research proposal for my thesis. My area of study is adolescent sexual activity and the title of the study is: "Factors that in-school adolescents identify as affecting their ability to discuss sexual activity". I intend to collect data in co-educational secondary schools within the central region of Malawi.

Considering that your nature of work involves adolescent welfare, I am hereby requesting that you be one of the experts to review my study instrument for content, clarity and applicability to the Malawian standards. You may do so by indicating the following against each of the responses: 1 = not relevant; possibly delete; 2 = relevant but needs minor alterations; 3 = very relevant. Any other suggestions pertaining to the study are greatly welcomed.

If you agree to be part of the panel, please sign the form and return it to me together with your suggestions and comments.

Your consideration will be kindly appreciated.

Yours truly,

Susan Geloo

Contact address in Malawi: Susan Geloo

Kamuzu College of Nursing, Lilongwe

Phone: [redacted]

EDITH COWAN UNIVERSITY
PERTH WESTERN AUSTRALIA
CHURCHLANDS CAMPUS

Pearson Street, Churchlands
Western Australia 6018
Telephone (09) 273 8333
Facsimile (09) 387 7095

3 November 1997

Committee for the Conduct of Ethical Research

Ms Susan Kanyanda Geloo
[redacted]

Dear Ms Geloo

Re: **Ethics Approval**

Code: 97-124
Project Title: *Factors that Malawian adolescent school students identify as affecting their ability to discuss sexual activity*

This project was reviewed by the Committee for the Conduct of Ethical Research at its meeting on 31 October 1997.

I am pleased to advise that the project complies with the provisions contained in the University's policy for the conduct of ethical research, and has been cleared for implementation.

Period of approval: **From** 3 November 1997 **To** 31 December 1998

With best wishes for success in your work.

Yours sincerely

[redacted]

ROD CROTHERS
Executive Officer

cc. **Dr R Maltby, Teaching & Learning**
Mrs G Sherratt, Administrative Officer, FRC

Clearance Letter to Ministry of Health (Malawi)

To: The secretary of Health

Ministry of Health

Box 3037

Capital city

Lilongwe 3

Att: The research Co-ordinator (Prof. L. Khonje)

From: Susan Kanyanda Geloo

[redacted]

[redacted]

W. Australia

Date: 04/11/97

Re: Application for National Clearance to Conduct a Research Project.

I am a student at Edith Cowan University pursuing a Master in Nursing Degree. I am currently writing a proposal titled " Factors that in-school adolescents report as affecting their ability to discuss sexual activity." I want to conduct the study in Lilongwe and Mchinji districts from a sample of adolescents obtained from co-educational secondary schools. For more details, please refer to the enclosed questionnaire.

I am writing to seek your permission to conduct this research. I intend to collect the data between December 1997 and February 1998, conducting a pilot study first, then the main data collection.

Waiting for your favourable consideration.

Yours Faithfully,

Susan Kanyanda Geloo (Mrs).

In reply please quote No. .....

MINISTRY OF HEALTH AND POPULATION
P.O. BOX 30377
CAPITAL CITY
LILONGWE 3
MALAWI

elegrams: MINMED, Lilongwe
elephone: Lilongwe 783 044
ax: 783 109

ommunications should be addressed to:
he Secretary for Health and Population

REF. NO. HSRC/174/97 **5th January, 1998**

Mrs S. K. Geloo
c/o Dr. Y. Nyasulu
Kamuzu College of Nursing
Private Bag 1
LILONGWE

Dear Mrs Geloo,

re: **FACTORS THAT MALAWIAN ADOLESCENT SCHOOL STUDENTS IDENTIFY AS AFFECTING THEIR ABILITY TO DISCUSS SEXUAL ACTIVITY**

I am pleased to inform you that the Health Sciences Research Committee approved your research proposal. However, the committee advised that the title of your proposal should read:

> "A Study of Factors that in-school Adolescents Report as affecting their ability to discuss Sexual Activity in Lilongwe and Mchinji Districts of Malawi" as this will not generalize the findings on the whole country".

Please note that it is a requirement that every local researcher pay K100 to the Health Sciences Research Committee. You are therefore required to pay K100 to the committee.

I wish you all the best.

Yours sincerely,

[redacted]

B.F.L. Matatiyo
for: SECRETARY FOR HEALTH & POPULATION

Institutional Clearance

To: The Headmaster/Headmistress

From: Susan Geloo (Mrs)

Kamuzu College of Nursing. P/B 1, Lilongwe.

Phone: [redacted]

Seeing Institutional Clearance.

This letter follows our telephone conversation in which I was seeking permission to conduct a study at your school. I intend to collect data from 50 adolescent students aged between 12-18 of either gender. The questionnaire will be completed at their convenient time and will be collected in sealed envelopes after a week's period. The Research Committee at the Ministry of Health and Population and a Curriculum Development Officer at Domasi Insititute of Education have approved the questionnaire as appropriate for Malawian secondary school adolescents. Enclosed is a copy of the questionnaire.

If you approve that the study should be conducted in your institution, please sign below.

Your kindness will be appreciated.

Yours Faithfully,

Susan Geloo (Mrs).

Approved by: _____

Signature: _____

Date: _____

Appendix C

Consent Forms

Participant's Consent Form

A study on factors that secondary school adolescents identify as affecting their ability to discuss sexual activity.

Dear student,

The purpose of this letter is to request your permission to participate in the above named study. The study is a requirement in the fulfillment of my studies. The results are also expected to add vital information on teenage sexuality in Malawi.

To obtain such information, you will be required to fill in the questionnaire that has been provided. You will not be asked to provide your name nor will you be identified by numbers of any sort. Your participation in the study is entirely voluntary and you are under no obligation to complete the questionnaire, although I hope that you will. Your refusal to answer some of the questions or need to withdraw from the study will not affect you in any way nor will it affect your studies. If you agree to participate in the study, please sign the attached form. Should you require further information or have any questions pertaining to the study, please do not hesitate to contact me.

I agree to participate in the above study. I understand that my participation in the study is totally voluntarily, that I am able to withdraw at any time and that not answering a question/s will not affect my well being nor will it affect my studies.

Participant's signature _____ Date _____

Researcher's signature _____ Date _____

Witness's signature _____ Date _____

Researcher: Susan Kanyanda Geloo

Address: Kamuzu College of Nursing, Private Bag 1, Lilongwe.

Parental Consent for Child to Participate in the Study

Dear guardian,

My name is Susan Geloo and I am completing a Master of Science in nursing at Edith Cowan University. I am currently undertaking research as one of the requirements for my studies. The title of the research study is: "Factors that secondary school adolescents report as affecting their ability to discuss sexual activity". The participants of the study will be obtained from co-educational secondary schools of Lilongwe and Mchinji districts.

The participants in the study have been chosen randomly and one of them is your child. Your child will be asked to complete a questionnaire, which will be administered by the researcher to a group of adolescents. They will be asked to complete the questionnaire at their own time. Clearance from the Malawi government, Ministry of Health and principals of the schools has already been sought and the questions have been approved as appropriate for secondary school students. His/her participation in the study is vital because it will help obtain information which might aid the development of programmes on health and well-being for adolescents.

Considering that your child is a minor, you are requested to sign this form in addition to the one that your child is also going to sign. Your decision not to allow him/her to participate in the study will not affect his/her well being, nor will it affect his/her studies. Should you require further information or have any questions,

please do not hesitate to contact me. If you agree to allow your child to participate in the study, please sign the attached form.

I _____ agree to let my child participate in the above study. I understand that his/her participation in the study is totally voluntarily and that withdrawal at any time or not answering any question will not affect his/her well-being, nor will it affect his/her studies.

Parental signature: _____ Date _____

Researcher's signature _____ Date _____

Researcher: Susan Kanyanda Geloo

Address: Kamuzu College of Nursing, Private Bag 1, Lilongwe.