

**SOME PSYCHOLOGICAL CORRELATES OF  
ADOLESCENT SEXUAL BEHAVIOUR AND HIV/AIDS  
PREVENTION**

**BY**

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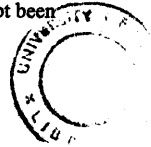
**UNIVERSITY OF GHANA  
DEPARTMENT OF PSYCHOLOGY  
LEGON**

# DECLARATION

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This thesis "Some Psychological Correlates of Adolescent Sexual behavior and HIV/AIDS Prevention" is a study presented to the Department of Psychology for the award of Masters of Philosophy (M.phil) degree in Clinical Psychology.

Except for references duly cited it represents an original study, which has not been presented anywhere for a degree.



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## **DEDICATION**

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**To my beloved mother Akosua Yeboah and my best friend Kwasi Adomako Boateng.**

## ACKNOWLEDGEMENTS

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I wish to express my sincere gratitude to all who helped me in diverse ways to make to make this study a success.

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*God bless you all*

## ABSTRACT

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A survey of 240 adolescents comprising 112 males and 128 females was conducted to find out how perceived control, self-esteem, HIV/AIDS knowledge and general anxiety predicted their perception of HIV/AIDS risk, ability to buy condoms and condom use at first sexual intercourse. An HIV/AIDS prevention program was piloted with 30 participants to assess its impact on participants' health locus of control, self-efficacy and HIV/AIDS knowledge at pre- and post- test periods.

A regression analysis of the survey indicated that perceived control, HIV/AIDS knowledge and self-esteem predicted ability to buy condom. The significance of this for assertiveness training to enhance perceived control over adolescents' health outcomes is highlighted.

An interesting finding on adolescent sexual experience was that 65 per cent of the sample at the time of the survey had not had sex before. This is corroborated by the Ghana Demographic and Health Survey (GDHS, 1998) that reported 62 per cent of women as abstaining. The implication of this for girl-child education is discussed.

Though statistical analysis of the intervention gave no significant result, the enthusiasm with which students enrolled in it showed a lack of an appropriate forum to talk about sex.

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## **CHAPTER ONE**

### **INTRODUCTION**

Health, in a World Health Organization (WHO) definition is not just the absence of disease or infirmity; it is physical, mental, and social well-being. Sexual and reproductive health can therefore be defined as physical, mental, and emotional well-being in sexual and reproductive functioning. It includes among other things:

- knowing how one's body works and how to take care of it;
- feeling good about sexuality and one's self;
- protecting self from sexually transmitted diseases and HIV/AIDS;
- protection from unwanted sex, rape, and abuse.

#### **Sexuality and Adolescence**

The foundations for sexuality, reproductive health and gender relations are laid very early in life and these are influenced by the interplay of socio-cultural and economic factors, peer pressure, mass media influences and familial forces which impinge on the lives of adolescents in the society. Adolescence according to WHO (1993) is the period of progression from the appearance of secondary sexual characteristics (pubescence) to sexual and reproductive maturity (puberty), the development of adult mental processes and adult identity as well as the transition from the total socio-economic dependence to relative independence. Adolescents aged 10 to 19 years constitute 20 per cent of the world's population (WHO, 1993). The sheer size of adolescent population should justify seriously addressing adolescent health issues, but this is not the case in developing countries. Until recently, Ghana did not have a blueprint addressing adolescent reproductive health issues

holistically. Under the auspices of the National Population Council, the government has developed a draft adolescent Reproductive Health Policy indicating government's commitment to the promotion of a healthy environment within which young people grow and develop to be responsible citizens.

Among the many developmental events that characterize the onset of adolescence, none is more dramatic, or more challenging to the young person's sense of identity, than the changes associated with sexual development. Bodily dimensions of boys and girls become increasingly differentiated, as boys develop broader shoulders and show greater overall gain in muscle development, and girls undergo breast development and develop more rounded hips. Girls experience their first menstruation and boys their first ejaculation. In both sexes, genital organs increase in size and pubic hair develops. The penis and scrotum in boys; the clitoris, vagina and labia in girls. All these physical changes require new adjustments on the part of the young person and lead to a changing self-image (Cogner and Petersen, 1984).

Furthermore, although sexuality in the broadest sense is a lifelong part of being human, the hormonal changes that accompany puberty lead to stronger sexual feelings. There may, however, be considerable diversity in the ways these feelings are expressed in different individuals and in the same individual at different times. Adolescents may find themselves "thinking more about sex, getting sexually aroused more easily, even at times feeling preoccupied with sex" (Brooks-Gunn and Furstenberg, 1989). Despite such individual variations, integrating sexuality meaningfully, and with as little conflict and disruption as

possible, with other aspects of the young person's developing sense of self and of relations to others is a major developmental task for both boys and girls. One of the difficult adjustments and perhaps the most critical that adolescents make revolves around their sexuality. Sexuality is a fundamental quality of human life, which is important for health, happiness, individual development, and preservation of the human race (Friedman, 1992). Biological maturity coupled with social pressures requires that adolescents come to terms with their awakening sexuality. In coming to terms with his or her sexuality however, the adolescent is confronted with a wider range of conflicting pressures in the adoption or modification of personal values. The peer group may be urging one set of values and the parents another. Most teens do not consciously plan to become sexually active, and they often do not foresee their first sexual experience. As such, it frequently is not experienced as a decision but rather something that just "happened" (Chilman, 1983).

Adolescence has traditionally been viewed as a time of prime health. Compared to those in other age groups, adolescents appear fairly healthy. Yet, despite this ostensibly optimistic picture, adolescence is also seen as a period in life typically associated with great risks in the area of health and education (Hechinger, 1992). Consequently, concern about the health status of youth has increased in recent years, and views of adolescence as a healthy decade are being challenged. The adolescence experience in the 1990s is unlike the adolescence of any adult- parent or grandparent. However, the behavior of today's adolescents leads to undesirable consequences, which make sexuality a serious issue for adolescents themselves, and society at large.

Rapid population growth lends urgency to the problem of adolescent pregnancy in developing countries since teenagers produce 10-15 per cent of all births (Palka, 1992). In Zambia for example, the growth rate is 3.2 per cent (so the population will more than double within twenty-three years), and the adolescent pregnancy rate is 133/1000. An extensive review of the literature conducted as part of the need assessment of Kenyan adolescents showed that many adolescents in Kenya are sexually active. Yet few protect themselves against pregnancy or sexually transmitted diseases (STD), including HIV/AIDS. The data (Palka, 1992) indicate that unplanned pregnancies arising from lack of knowledge and practice of contraception among sexually active adolescents, exacts a heavy toll on Kenyan girls. Over ten thousand (10, 000) girls are expelled from school each year due to pregnancy. Many resort to illicit abortions resulting in severe gynecological complications and even death. STDs, such as gonorrhoea are common among sexually active adolescents.

In Ghana, young people in the 15-24 age bracket account for approximately one-third of all births (GDHS, 1998). Pregnancy and childbearing among adolescents have been part of the traditional fertility patterns in Ghana. Traditionally, marriage and the commencement of childbearing have followed shortly after the commencement of menarche, resulting in a condensed adolescent period. Consequently, marriage tends to take place while girls are still young, prior to attaining full biological maturity. The early entry of adolescents into sexual activity is not a healthy development in Ghana. This is particularly so as a large proportion of sexually active adolescents have little or no knowledge about family planning and the prevention of pregnancy and sexually transmitted diseases. Besides, many of them

are not married and hence, do not have any easily identifiable responsible sexual partner. A 1993 Ghana Demographic and Health Survey reported that as high as 66 per cent of females aged 20-24 years were reported to have had their first sexual intercourse by age 18 years and, by age 20 years almost 90 per cent of them had their first sexual experience. According to the Ghana Demographic and Health Survey (GDHS, 1998), the median age at first marriage in Ghana has risen slowly over the last two decades, from 18.7 years for women age 40-49 to 19.6 years for women age 25-29. This trend towards later marriage is also evidenced by data showing that the proportion of women married by age 15 has declined from 11 per cent among women age 40-44 to 4 percent among those currently age 15-19 years. The median age at first sexual intercourse for women has not changed over the last 20 years or so, ranging from 17.5 among women age 40 and over to 18 years for women age 25-29. Virtually, all women initiate sexual intercourse by their mid-twenties. Sixty-two per cent of women in the 15-19 age group have never had sex.

In spite of this recent healthy sexual behavior of the Ghanaian adolescent, there is cause for alarm. This is because of the low contraceptive use among Ghanaian adolescents. At the time of the survey, about 14 per cent of teenagers were already mothers or pregnant with their first child. Nevertheless, evidence from research indicates that children born to very young mothers are at an increased risk of illness and death. Childbearing during adolescence also has adverse consequences for the health of the mother, not to mention the social constraints on young women's ability, educational and employment opportunities. In addition, young mothers may not be emotionally mature to bear the burden of childbearing and rearing (GDHS, 1998). Evidence from the 1998 GDHS shows that 14 per cent of

adolescent females have begun childbearing compared to 22 per cent in 1993. The percentage of adolescent females who have begun childbearing increases with age from 2 per cent among 15 year olds to 31 per cent among 19 year olds. Out of the 14 per cent who have started childbearing, 12 per cent are already mothers, while 2 per cent are pregnant with their first child (Population Impact Project, 2000).

Certain demographic realities in the world of adolescents globally according to Friedman (1992), have impact on sexuality. These are:

- i. Over 50 per cent of the world's population are less than twenty-five years 25 years and are predominantly living in developing countries; 33 per cent or 1.5 billion are between 10-20 years.
- ii. The plethora of youth living in unstructured and impoverished conditions;
- iii. The communication explosion across cultural boundaries; and
- iv. The increase in travel, tourism, and migration.

The above factors present pressures and opportunities for sexual contact. Also, the impoverished conditions of the adolescent limit his or her options for making a living, and, particularly for the female, predispose her to sexual indulgences for economic gains. The "sugar daddy" phenomenon is well documented in Ghana as a practice whereby daughters who do not get all their needs met by parents enter into sexual relationships with men they think can provide for their needs. The converse is also true for boys. They enter into relationship with older women if their parents do not meet all their needs- a phenomenon

known as “sugar mummy”. However, it is more prevalent among girls. Nuclear families and single-parent families are replacing the extended families of traditional societies. In the midst of all these dramatic changes, puberty is coming earlier (younger age at menarche); there is erosion of social and cultural controls on premarital sex, abandonment of pubertal rites of passage, and widespread schooling. The adolescent therefore finds himself or herself in an unfortunate situation where biologically she is exposed to the dictates of his or her sexuality but socially and culturally, left alone to contend with it. This is because the socio-cultural milieu adolescents find themselves (particularly in some developing countries Ghana inclusive), does not view adolescent sexual development as a normal and healthy biological, social, emotional, and cultural developmental process. As a result, any time sex comes up for discussion; it is only the “don’ts” of sexuality, which is emphasized.

#### **Correlates of Adolescent sexual behavior**

Studies on the antecedents of adolescent sexual activity in Ghana have concentrated on demographic and socio-economic variables to the neglect of psychological variables (Nabila and Fayorsey, 1996). Adolescent sexual behavior for long, has been linked to some psychological variables such as self-esteem, locus of control, perceived invulnerability, peer pressure etc.

#### **Self-esteem**

Self-esteem is the way that we feel about ourselves. According to Erikson, the most essential development in adolescence is the establishment of a sense of one’s own identity as a unique person (ego identity) and the avoidance of role confusion. A developed ego

identity means that one should feel positively about himself or herself. Self-esteem is developed when adolescents come to the realization that their own fund of information and memories are unique and not accessible to others. They begin to define themselves in terms of their own skills and preferences and in terms of the psychological traits they attribute to themselves. They begin to understand how other people see them and evaluate their own behavior on the basis of a set of self-accepted standards. If their evaluation is favorable, we can say that they have high or positive self-esteem. The relationship between self-esteem and adolescent sexual behavior is seen in the sense that if adolescents have positive or high self-esteem, they are confident to say what they think and feel clearly and expect to be treated well. Thus, they will be able to negotiate condom or contraception use with their partners as well as say no to sex when they actually mean no.

### **Locus of Control**

Coopersmith (1967) suggested that people evaluate themselves in terms of their ability to control events and that their self-esteem rests to some extent on the feeling that they have this ability. Seligman (1975) has assembled impressive evidence in his book on helplessness that animals and people initiate little activity and lose motivation when placed in situations where outcomes are unaffected by their behavior. Even when these individuals do succeed in influencing events, they seem unable to believe that they have done so. They continue to think that they are simply pawns of external circumstances. In extreme cases, individuals with a history of having very little control over their life circumstances become severely depressed. Rotter (1954) found some consistent differences among normally functioning individuals with respect to their sense of control over their lives. Certain

individuals characteristically feel that they are helpless; that the things that happen to them are as a result of luck or fate. Others feel that outcomes are a result of their own actions; that they have power to determine what happens to them and are responsible for their own success or failure. The first group is said to have external locus of control, the second group an internal locus of control. An adolescent female who perceives herself as helpless in a sexual relationship will obviously look up to her partner to decide whether to use condom or not. In other words, the female adolescent believes she has no control over the outcome of events as far as their relationship is concerned and this perception of lack of control will have important implications for the kind of behavioral opportunities that she will perceive to protect herself. It is clear at this point, to see how an adolescent without a sense of control will fall prey to peer pressure to indulge in sex and non-compliant contraceptive behavior.

### **Risk Perception**

It is generally assumed that adolescence is a time of risk taking. A ready explanation for why adolescents take risks is that they ignore, or at least greatly underestimate the likelihood of bad outcomes. A popular account of such an underestimation is that teenagers see themselves as invulnerable to those threats. As a result, they focus just on the benefits of risk behaviors. An adolescent, who does not believe that unprotected sex could make her pregnant, will definitely indulge in it. The perception that it is a risk is not salient enough to deter him or her from unprotected sex. It is well established, statistically that adolescents experience the negative consequences of some risk behaviors to a disproportionately high degree as compared to adults (Dryfoos, 1990 and Hechinger, 1992). For example, one in

every seven teenagers in the United States may now have a sexually transmitted disease (Sunenblick, 1998), twice the rate for adults in their 20s (Hein, 1989).

### **Anxiety**

Anxiety is of central importance as a determinant of human behavior, for it is most likely to arouse internal responses for example, thoughts, feelings or behaviors that conflict with the satisfaction of other needs or motives. Because anxiety represents a painful state of heightened tension that markedly disturbs psychological equilibrium, responses that lead to a reduction in anxiety tend to be learned. These responses are known as defense mechanisms in psychoanalytic parlance. The defense mechanism relevant to this study is denial. In denial, the individual insists that the anxiety-provoking event is untrue and believes it. Adolescents may choose to deny the consequence of unprotected sexual intercourse, that is, pregnancy, STDs, HIV/AIDS as untrue because thinking about them may evoke anxiety in them.



## **HIV/AIDS**

AIDS stands for Acquired Immune-deficiency Syndrome. It is the advanced stage of the disease caused by the Human Immune-deficiency Virus. The spread of HIV/AIDS, identified only in the late 1970s and early 1980s as a major health problem, has by far exceeded our worst fears. Nearly 34 million in the world are currently living with HIV/AIDS and one-third of these are young people between the ages of 10 and 24. There is evidence that new HIV infections in the younger age groups continue to rise as the overall proportion of people living with HIV/AIDS falls. Globally, more than half of all new HIV infections are among the 15 – 24 age group and younger. In one study in Zambia, over 12% of the 15 and 16 year-olds seen at antenatal clinics were already infected with HIV. Girls appear to be especially vulnerable to infection. Although statistics from Uganda show that, in some areas, infection rates among teenage girls have dropped 50% from 1990, incidence rates are still six times higher than in boys of the same age. In South Africa, the proportion of pregnant 15 to 19 year-olds infected with HIV rose to 13% in 1996 from around half that level just two years ago. In Botswana, the infection rate stood at 28% for the same group in 1997 (WHO, 1993). Young people may know of the risks of unprotected sex but feel AIDS could not possibly happen to them. In Malawi, most young men and women know how AIDS is transmitted and how it can be prevented. However, many feel invulnerable to the virus. Some 90% of teenage boys said they were at no risk or at minimal risk of infection, even though nearly half of them reported at least one casual sex partner over the last year, and condom use was low.

The first AIDS cases reported in Ghana were in 1986. According to the 1999 National AIDS Impact Model (AIM), an estimated 400,000 Ghanaians aged 15-49 are currently living with HIV. At current rates of infection, it is estimated that in the year 2000 there will be 62,000 new cases of AIDS and by 2009, more than 1 million people will be living with HIV in this country.

The spread of AIDS in Ghana is by heterosexual means mainly. The age at first sexual intercourse and general sexual behavior therefore, become crucial in understanding the incidence and transmission of AIDS among the adolescent population in the country. Reporting on the social dimensions of HIV/AIDS infection in Ghana, Awusabo-Asare and Anarfi (1995) presented data to show that in a sample of 141 AIDS patients, the proportion of adolescents aged 15-19 years was the lowest compared to all other groups. Nevertheless, they cautioned that this should not give the erroneous impression that AIDS is not a threat to the health of the adolescent population. This is because about 40 per cent of the AIDS infected patients were in the age group of 20-29 years. Meanwhile, the incubation period for an HIV infected person to develop into a full-blown AIDS patient is reported to vary between 5 and 15 or more years. On this account, it is possible that many of the AIDS infected patients aged 20-34 years may have contracted the disease at ages less than 20 years. The extent to which adolescents may be exposed to sexually transmitted diseases and AIDS may largely depend on their knowledge of the diseases, their mode of transmission and their effects.

## **Interventions**

Governments and non-governmental organizations (NGOs) all over the world have responded to this gloomy picture of adolescence with preventive strategies to help contain the consequences of adolescent sexual behavior. Prevention programs tend to fall into three main categories. They include those that provide information relevant to high-risk behavior and those that teach skills to prevent engagement in high-risk behavior, for example, decision making, resisting peer pressure (Stipek, 1999). These are often referred to as “life skills training”. Some of the programs included under life skills training also target psychological variables associated with high-risk behavior, for example, low self-esteem and perception of control. A third miscellaneous group of programs targets particular behaviors or outcomes, such as teenage pregnancy, sometimes using strategies that apply only to the particular targeted behavior. Sex education as an intervention, entails the provision of information relevant to high risk behavior. Topics have included anatomy and physiology, human reproduction, contraception, and venereal disease (Kirby and Coyle, 1997). In recent times programs have focused on risk reduction and prevention of teenage pregnancy, STDs, and AIDS (Yarber, 1992). The goal has been to educate adolescents about sexual reproduction, sexually transmitted diseases including AIDS, and contraceptive use. Baldo (1996) asserts that open communication with adolescents about sex and sexuality is necessary for a STD/HIV prevention program to succeed, but conflicts with adult beliefs that sex education encourages young people to experiment with sex prematurely, and that teaching about contraception and condoms condone sexual activity. To address this, the WHO Global Program on AIDS (1995) commissioned three reviews of studies on the effects of sex education. One review focused on the behavioral impact of sex

education programs as measured by rates of teenage pregnancy, abortion, birth, STDs, and self-reported sexual activity. It showed that sex education programs did not lead to earlier or increased sexual activity in young people, and that such programs might delay initiation of sexual intercourse, decrease sexual activity, and increase the adoption of safer sexual practices in sexually active young people (WHO, 1995).

Sexual activity during adolescence can lead to early pregnancy, abortion, HIV/ AIDS, and other sexually transmitted diseases (STDs). Indeed the pregnancy rate during adolescence remains high, even in developed countries. Studies have, however, shown that sex education can prevent adolescent pregnancy. Barnett (1997) reports that sex education can help prevent the risk of unplanned pregnancy and STDs by providing information to young people about reproductive issues and encouraging the consistent use of contraception. Adolescents, therefore, need to receive sex education in the interest of preventing the risks of unprotected sex. Sex education involves imparting the knowledge and understanding of the process of sexual development and interactions, which begins at conception and affects the individual throughout his or her life. Sex education encompasses the biological, psychological, and sociological aspects of human sexual behavior, which are responsible for the development of the child into a healthy and responsible adult capable of following his sexual instincts without being obsessed by them. The subjects include education about the anatomy and physiology of the human reproductive system, conception, contraception, psychosexuality, gender, sexual differences and what comprises love. Sex education enables an individual to recognize and be comfortable with his or her sexuality.

World Health Organization (WHO, 1995) research has found that teaching the youth about sex correctly and accurately delays the initiation of their sexual activity. Otherwise, media influences and the earlier onset of puberty make adolescents sexually active at earlier ages. According to Cordova (1998), adolescents need sex education because everyday throughout the world they face problems that have to do with their families, their friends, and sex. If parents are unable to give their children advice about sex, teenagers may use the sexual experience as a way of expressing their rebellion. It is dangerous for parents to believe that ignorance about sex will protect their children because if a child knows nothing about sex, he or she will be unable to decide what behavior is appropriate. Shaw (1995) maintained that parents need to recognize that children have a right to sex education and, if not properly educated at home, will receive misleading information from the mass media. Sex education should help young people to develop the ability to handle their sexual feelings, establish personal guidelines and standards for responsible sexual behavior, and form healthy interpersonal relationships.

### **Aim**

The aim of the study was to investigate the contribution of some psychological variables for example, self-esteem, anxiety and locus of control to the understanding of adolescent sexual behavior and HIV/AIDS prevention.

### **Objectives**

The objectives of this study were:

- (i) to identify the psychological antecedents of adolescent sexual behavior among in-school Ghanaian adolescents;
- (ii) to assess the HIV/AIDS knowledge base of in-school adolescents; and
- (iii) to propose an STD/HIV/AIDS intervention suitable for the in-school Ghanaian adolescents based on a thorough evaluation of theory-based STD/HIV/AIDS interventions that have been found to be effective.

### **Hypotheses**

1. Adolescents with high perceived control (i.e., high internal health locus of control) will feel at less risk of acquiring HIV/AIDS than those with low perceived control (i.e., low internal health locus of control)
2. Adolescents with low HIV/AIDS knowledge will feel at less risk of acquiring HIV/AIDS than those with high knowledge

3. Adolescents with low anxiety will feel at lower risk of acquiring HIV/AIDS than those with high anxiety
  
4. Adolescents with high perceived control (i.e., high internal health locus of control) will report more confidence in engaging in health-enhancing behaviors such as buying condoms, saying no to sex etc, than those with low perceived control (i.e., low internal health locus of control)
  
5. Reported condom use will be higher among adolescents with high self-esteem than those with low self-esteem
  
6. Pre- and-post intervention scores will show an increase in the following outcome measures:
  - i. perceived control
  - ii. self-efficacy
  - iii. HIV/AIDS knowledge

## **CHAPTER TWO**

### **LITERATURE REVIEW**

Research and policy interest in adolescent sexual behavior continues because it is the key risk behavior in contracting sexually transmitted diseases and unplanned pregnancy (AGI, 1994; Hayes, 1987; Miller and Moore, 1990). Several reviews have organized the correlates of adolescent sexual behavior into categories including biological, psychosocial, family, peer and socio-cultural antecedents (Brooks-Gunn and Furstenberg, 1989; Hayes, 1987; Hofferth, 1987; Miller and Moore, 1990; Zabin and Hayward, 1993).

#### **Biological Correlates**

Early onset of pubertal development, clearly a biological antecedent, is associated with early initiation of sexual intercourse among females. Two related studies found strong evidence for the hormonal basis of sexual motivation for both males and females and for sexual behavior in adolescent males (Udry, Billy, Morris, Groff and Raj, 1985; Udry, Talbert, and Morris 1986).

#### **Family Correlates**

A variety of family characteristics have been hypothesized to be precursors of early sexual activity. One of the most fundamental family predictors of early sexual intercourse is family configuration.

Research indicates that adolescents in single-parent families in the West tend to become sexually active earlier than those in two-parent families (Forste and Heaton, 1988; Miller and Moore, 1990) and that the effect of family configuration persists even when other important predictors such as social class, race, age and religiosity are controlled (Day, 1992; Miller and Bingham, 1989).

Evidence for effect of family processes on early sexuality, however, has been inconclusive (Miller and Moore, 1990). Although there is evidence that warm, supportive, and communicative parents delay sexual experience among their offspring (Inazu and Fox, 1980; Simon, Berger, & Gagnon, 1972; Zelnick, Kantner & Ford, 1981), there is also evidence that levels of closeness and communication with parents have little or no effect on adolescent sexual activity (Newcomer & Udry, 1983).

Though the presence of sexually active siblings is an often-overlooked family influence (Whitebeck, Yoder, Hoyt, & Conger 1999), there is evidence that siblings' attitudes regarding sexual permissiveness and levels of sexual activity are related (East, Felice, & Morgan, 1993). Older siblings are powerful role models for younger brothers and sisters. Also, the higher parents' educational attainment and educational goals for children, the less likely children are to be sexually active as teens (Forste & Heaton, 1988; Miller & Sneesby, 1988).

### **Poverty**

**Socio-economic conditions** are also associated with early sexual activity. Adolescent sexual activity and pregnancy are **highest in poor neighborhoods** and among those of low socio-economic status (Hogan & Kitagawa, 1985; Miller & Moore, 1990). Miller et al (1997) have also found that parents' education and family income are positively related to **age at first intercourse** for both males and females. **Poverty is widespread in Ghana. Currently, it is estimated that one out of every three Ghanaians lives below the poverty line.**

Consequently, many families are exposed to low standards of living characterized by poor quality of life and limited access to certain basic social amenities. The high levels of poverty in addition to high cost of living have made it difficult for many parents to provide their children with the needed care and attention (Ghana Statistical Service, 1995). Adolescents, especially females are therefore left alone to contend with the vagaries of the harsh economic environment for their survival. According to Nabila and Fayorsey (1996), whenever parents are unable to meet most of the needs of their daughters, they (daughters) are compelled to look for additional or alternative means of catering for themselves. This option invariably forces them to “sell” their bodies to older men so that they can earn money to fend for themselves. This problem is worsened by the unemployment situation in the country.

### **Religion**

Numerous studies have reported a relationship between religion and adolescent sexual activity (Forste & Heaton, 1988). Adolescents with no religious affiliation are most likely to have sexual intercourse. Those who are members of churches that advise sexual abstinence before marriage are less likely to have had sexual intercourse than those belonging to other churches (Miller & Olson, 1988; Thornton & Camburn, 1989). The restraining effect of religion on adolescent male sexual behavior has been shown to operate independently of hormonal influences (Halpern et al, 1994). Thornton and Camburn (1989) found that religious adolescents are less likely to become sexually active, and conversely, those who initiate sexual activity at an early age are less religious.

### **Peer Pressure**

Another often cited predictor of early sexuality is peer influence. There is abundant evidence that adolescents are affected by the sexual attitudes and behaviours of friends. The perceptions that their friends hold sexually permissive attitudes and are sexually active influence their sexual decision-making (Whitebeck, Yoder, Hoyt & Conger, 1999). Young people's attributions regarding their friends' sexual activity are more strongly associated with their sexual behaviors than are friends' actual behaviors (Cvetkovich & Grote, 1980). Although it is not entirely clear whether friends directly influence behaviors or whether a selective process operates where friendship choices are made on the basis of perceived similarities (Billy & Udry, 1985; Billy, Rodgers, & Udry, 1984), the correspondence between adolescents' and close friends' sexual behaviors is well established (East et al 1993).

### **Dimensions of Adolescent Sexuality and Reproductive Behavior in Ghana**

Adolescent fertility and reproductive health, which are to a large extent determined by their sexual behavior, have in recent years occupied a center stage in the discussion of reproductive health. In Ghana sexual activity and child bearing are traditionally expected to take place within wedlock .

The 1998 Ghana Demographic and Health Survey (GDHS) reported that almost 38 per cent of adolescent females have had sexual intercourse in 1998. The proportion that has had

sexual intercourse ranges from 7 per cent among 15 year olds to 68 per cent among 19 year olds. Seven per cent of adolescents have had first sexual intercourse by age 15. This represents a 5 per cent point reduction from the 1993 figure.

Adolescents are poor users of contraception. The proportion of adolescent females using contraceptive methods has decreased from 11.3 per cent in 1993 to 8.6 percent in 1998. The proportion using any traditional method was 6.4 per cent compared with 5 per cent for any modern method in 1993. The reverse is the case for 1998 (4.8 per cent as against 3.8 per cent). High fertility, which invariably results from increased sexual activity, is characteristic of Ghana and other sub-Saharan countries. This development is partly attributable to early age at marriage which is unaccompanied by effective contraceptive use. Evidence from the 1998 GDHS shows a trend towards later marriage. The median age at marriage for women aged 20 to 49 has increased slightly from 18.9 years to 19.1 years in 1998. Regional variations however, exist. The median age at first marriage for women aged 25-49 years ranges from 18.2 years in Brong Ahafo Region to 20.4 years in Greater Accra Region. The proportion of females who were first married by age 15 has declined from 10.7 per cent among age 40-44 to 3.8 per cent among adolescent females. As expected, adolescent males married later than their female counterparts. The proportions married are 13.4 per cent for adolescent females compared to 2.6 per cent for adolescent males. Whereas 3.8 per cent of adolescent females were married at age 15, no adolescent male was married by age 15 (GDHS, 1998).

Early age at menarche coupled with the absence of contraception increase the risk of child bearing. There is evidence to the effect that age at menarche is falling due probably to improvements in nutrition and healthcare of adolescents. In 1998, the median age at menarche declined from 15 years among adolescent females. Among the adolescents, 30 per cent have menstruated at age 13, 48 per cent at age 14 and 21 per cent at age 15 (GDHS, 1998).

### **Premarital Experience**

Evidence from the 1993 and 1998 GDHS indicates existence of premarital sexual activity among adolescent females. In 1993, 59 per cent of adolescent females had had sexual intercourse compared to 38 per cent in 1998. It is significant to note that the proportion of adolescent females who have experienced premarital sexual intercourse decreased from 47 per cent in 1993 to 26 per cent in 1998. For both 1993 and 1998, sexual activity among adolescent females increased with age. The percentage of adolescent females who have had sexual intercourse in 1998 rises from 7 per cent among 15 year olds to 68 per cent among 19 year olds. Two out of three 19 year olds have experienced sexual intercourse. Premarital sexual experience of adolescents in Ghana has been attributed to certain socio-economic variables, for example, poverty, unemployment, peer pressure, lack of knowledge of reproduction and contraception and divorce.

Unemployment is a common problem among Ghanaian adolescents (Nabila, Fayorsey and Pappoc, 1997). It is estimated that for every unemployed adult person in Ghana, there are

four unemployed youth (Ghana Statistical Service, 1997). Nabila and Fayorsey (1996), identified the problem of unemployment among adolescents as one of the major determinants of adolescent reproductive behavior in Ghana. In their study, it was found that 40 per cent of all street adolescents in both Accra and Kumasi cited unemployment as a cause of adolescent pregnancy in Ghana. The study left certain questions unanswered. Are the adolescents in question employable at all? Are they not supposed to be in school acquiring knowledge and skills to better equip them for the future? If the argument for employment for adolescents is pushed too far what will be its implication for child labor and the protection for children's rights in general? In our search for causes and solution for adolescent sexual behavior it is important for researchers and service providers to be circumspect in the solutions they offer so that the rights of children would not be abused at the end.

The 1998 GDHS showed that 4.6 per cent of females aged 15-49 years were divorced. The corresponding figure of males aged 15-49 years was 2.2 per cent. Because of higher male female mortality, the proportion widowed, was 0.6 per cent among males compared to 1.8 per cent among females. In a study by Brown (1994) conducted in the US, it was found that over 30 per cent of married women are not currently residing with their husbands. The increasing spate of female-headed households has a negative impact on adolescent fertility. The incidence of sexual intercourse among adolescent tend to be influenced by the marital status of their parents

A study by Adomako (1991) revealed that 48 per cent of adolescents whose parents have never been married were found to have had sexual intercourse. The level of the incidence of sexual intercourse among adolescent males (67 per cent) was twice higher than that for their female counterparts (29 per cent). Compared to adolescents whose parents were married and living together, it was observed that 40 per cent of adolescent males and 17 per cent of adolescent females have had sex. Separation, divorce and single parenthood are major factors contributing to early sex, teenage pregnancy and promiscuity (Nabila and Fayorsey, 1996). Monitoring, control and effective nurturing of children become quite difficult for parents who are separated or divorced. Thus, some adolescents with divorced or separated parents take undue advantage of the apparent lack of communication between their parents to engage in early sexual relationships. With these family characteristics, the little pressure from peers will be enough to make them succumb to engaging in at-risk behaviors such as unprotected sex and drugs.

Peer pressure is believed to be a strong factor affecting adolescent sexuality and teenage pregnancy. Nabila and Fayorsey (1996) in their study reported peer pressure as a serious youth problem leading to adolescent pregnancy. The respondents in their study agreed that peer pressure is an important factor that pushes them into sexual relations which results in unwanted pregnancies. Some of them reported that there is virtually no communication between parents and their children at home with regards to sex education. The information that some adolescents receive from their parents or older adults is often inadequate. They are therefore unable to determine the truth or falsehood from all the information provided by their friends on sex.

Following from the above is lack of knowledge of reproduction and contraception. In the 1993 GDHS, only 13 per cent of adolescent females could correctly identify when a woman's ovulatory cycle is most fertile and when she is likely to become pregnant. There is no corresponding information for 1998 to indicate trends in knowledge of the ovulatory cycle. In Adomako's (1991) study on adolescents in Ghana, it was reported that a few of the adolescents from Cape Coast believed that if one has not had sex by a certain age (though they were not certain and unanimous on the exact age), something could happen to the one. Among the problems cited by the young girls include excessive bleeding by the woman and the eggs of the woman "getting spoilt". Many adolescent females also believed erroneously that if they have sex for the first time or occasionally, they would not get pregnant. Evidence from the 1993 and 1998 GDHS however, shows that there is widespread knowledge of contraception among adolescent females. Contraceptive knowledge among adolescent females has increased from 85 per cent in 1995 to 87 per cent I 1998. In spite of this positive sign, it is important for us to remind ourselves of some of the consequences of adolescent sexual behavior.

### **Consequences of Adolescent Sexual behavior In Ghana**

Early pregnancies often carry a great deal of risk. This is usually due to the physiological underdevelopment of the young woman below 18 years of age. More often than not pregnancies that occur among adolescents of less than 18 years tend to increase the chances of prolonged or obstructed labor that could endanger the life of the adolescent.

In addition, the initial rejection and stigmatization that many adolescents go through could result in loss of appetite and poor psychological disposition. Many of them as a result, do not eat well although that is the period during which they need high levels of nutritional intake. This is also compounded by the fact that many young girls in school postpone seeking antenatal care to avoid being scorned or expelled from school. Anemic conditions set in causing much danger to the health of both “mother” and unborn baby. In Ghana, underweight babies at birth and premature deliveries are more prevalent among adolescent mothers in comparison with older ages (Ghana Statistical Service, 1994).

Again, in Ghana as in most sub-Saharan African countries, the nation-wide data on abortion are not easily available. This problem may be as a result of the social stigma associated with abortion as well as the illegality for reasons other than rape, incest or maternal health. Many adolescents, however, seek abortion but because of their economic situation and fear of social sanctions most of them often resort to self-induced abortions or consult traditional abortionists, whose services are less expensive but dangerous.

Although Bledsoe and Cohen (1993) admitted that abortions performed on adolescents are no more dangerous than for other women, they list three reasons why abortion is likely to be lethal among adolescent females. The first reason given has to do with the problem of confidentiality and legal hindrance. Abortion is illegal in Ghana. It is permitted only when the pregnancy is as a result of rape, incest, or when the health of the mother is at risk. Besides, access to confidential services including contraceptive services to young people is woefully inadequate. Though the Planned Parenthood Association of Ghana (PPAG) and other service providers have introduced a comprehensive adolescent sexual and reproductive health counseling centers or clinics in the country, their coverage is not wide enough. Consequently, many adolescents are not reached with this important service. Unmarried teenagers who get pregnant often try to avoid the hospital for fear that a relative or a friend who would want to inquire of their mission will meet them. The outcome of this is often tragic. Most adolescents would usually report to quack practitioners first and then when complications develop as they often do, they report to the hospital.

The second and third reasons given by Bledsoe and Cohen deal specifically with the issue of poverty and the delay in seeking medical care. Accordingly, few adolescents ever have ready cash to pay for abortion services. Abortion costs in Ghana can run into as much as ₵500,000 at private medical clinics. Since costs deter the youth, cheaper but more dangerous methods are usually employed. In their anxiety to abort the pregnancy, adolescents use various abortifacients. Some include a mixture of lemon, akpeteshie (local gin), Guinness and "Acheampong weed" (Adomako, 1991). Adolescent maternal mortality has been found to be associated mainly with abortion of untimed and unwanted

pregnancies. In a study done during the period 1983-85, Ampofo (1989) found that the level of maternal mortality in adolescent pregnancies seen at Korle-Bu one of Ghana's teaching Hospitals was higher compared to the adult population. Medical problems confronting adolescents who are pregnant are intertwined with both social and educational problems.

There are social and educational consequences too. According to the Adolescent Fertility and Reproductive Health in Ghana (Revised edition, 2000), the Ghanaian society culturally has for a long time been pro-natalist in its love for early birth and large family sizes. However, to most families, it is an abomination for an adolescent to become pregnant before marriage. The first consequence in the event of an adolescent pregnancy is social rejection. Such rejection, could affect the mental and psychological development of the adolescent. The possibility of facing such societal rejection and humiliation by her immediate family, however, temporary it may be, usually explain why some pregnant adolescents conceal the pregnancy and try to get it terminated by any possible means with little regard to the risks they may be subjecting themselves to.

In situations where adolescent girls may be in school when pregnancy occurs, some parents on account of poverty would immediately withdraw the pregnant girl from school irrespective of the stage she has reached in school. When this happens, there is often no chance that either the girl or her parents would consider her re-entry into school to continue her education even after birth. There are instances where parents have been supportive of their pregnant teenage daughters by supervising their re-entry into school after birth.

Albeit, in Ghana, these instances are rare. Again, in circumstances where the girl or her parents are willing to return her to school, there is always a problem of how she will cope with life at her former school after having been known by all her schoolmates and friends to have had a baby. The fear of being mocked at school would therefore put many adolescents mothers off from pursuing further education in their former school. There is also the problem of most heads of schools not being willing to accept such unfortunate girls back to their schools for fear of other girls following their example.

In Ghana, most studies on sexual behavior and teenage pregnancy have dealt with the economic, social, cultural, and educational factors surrounding pregnancy prevention in adolescents. However, psychological factors affecting adolescent reproductive health have not been studied. The literature on adolescent reproductive behavior identifies some of these correlates as self-esteem, HIV/AIDS knowledge, anxiety and locus of control.

#### **Psychological Correlates:**

##### **Self-esteem**

**Self-esteem** is the way we feel about ourselves, either positively or negatively. Research findings have been inconsistent regarding the effects of adolescents' psychological characteristics on early sexual behavior (Whitebeck, Yoder, Hoyt and Conger, 1999). Jessor, Costa, Jessor and Donovan (1983) found little evidence for the relationship between self-esteem and sexual behaviour. Miller, Christensen, and Olsen (1987) have also found that the relationship between self-esteem and early sexuality varies depending on the adolescents' beliefs regarding the appropriateness of early sexuality. **Self-esteem** was

negatively associated with early sex for adolescents who believed it was wrong but positively related to early intercourse for those who believed it was acceptable.

The relationship between self-esteem and sexual behavior according to Walsh (1991) fluctuates over time as social norms relating to acceptable and unacceptable behavior change. Walsh reported (Jacoby & Williams, 1985), that American sexual attitudes are more permissive than they were 20-30 years ago. In the 1960s, Stratton and Spritzer (1967) hypothesized that sexual permissiveness was deviant, and individuals holding attitudes that departed from acceptable standards would have low self-esteem. Their hypothesis was confirmed: the most sexually permissive subjects were lower on self-esteem than their more socially conforming subjects. In the more sexually permissive 1970s, the self-esteem/sexual permissive attitudes relationship reversed. Pelman (1974) found that high self-esteem subjects reported significantly more coital partners than did low self-esteem subjects. A later study (MacCorquodale & DeLamater, 1979), found no significant differences between high and low self-esteem subjects on number of coital partners for either males or females.

Walsh (1991) updated this small body of literature with data obtained in the 1980s- a decade that might be characterized as sexually ambiguous. For instance, in America, a survey of 12,000 single men and women from 1966 to 1986 found that in 1966, 72.6% of the males and 43.3% of the females had engaged in sex with someone they did love. But in 1986 those figures had dropped to 48.8% and 17.9% respectively (Zinn & Eitzen, 1990). In recent times however, the youth both in developed and developing countries, continue to be

exposed to sexually explicit material in all media forms, messages implying that relatively unbridled sexuality is socially acceptable.

Another study (Walsh & Balazs, 1990) suggests that self-esteem levels are affected differentially for men and women depending on the amount of love that subjects reported they were receiving from significant others. Although their subject of concern was love rather than sex, and their hypothesized causal direction was the greater the amount of love received the higher the self-esteem, similar gender effects may be found in terms of number of sexual partners.

However, sexual activity is behavior, and engaging in any kind of behavior that carries with it the risk of rejection requires a certain level of the self-confidence that accompanies higher self-esteem (MacDonald, Ebert, & Mason, 1987). Walsh's (1991) causal direction assumed that the higher the self-esteem the greater the number of sexual partners. This relationship was hypothesized to be greater among males than females because it is assumed that it is males who generally initiate any sexual activity (Wilson, 1983), and behavior that carries with it the possibility of rejection requires a certain amount of self-esteem to initiate. In an unusual analysis of studies of such nature, Walsh tested the relationship between self-esteem and number of sexual partners among virgins and non-virgins of both sexes. It has been noted that males arrive at their self-evaluations via more diverse routes than females (Rosenberg, 1979; Walsh & Balazs, 1990). Rosenberg (1979) pointed out that, males place greater value on physical abilities and on interpersonal dominance, both of which are related to sexual behavior, than do females. Females, on the

other hand, placed greater emphasis on being liked, interpersonal harmony, and sociability. In most instances, females control the direction of sexual encounters: men ask, women accept or reject. Thus, Walsh hypothesized that male virgins would have significantly lower self-esteem than male non-virgins, but that no such relationship would be observed between female virgins and non-virgins.

The result of Walsh's (1991) study showed that self-esteem had significant impact on the number of sexual partners experienced among adolescents. The relationship was particularly important for males, among whom low self-esteem appeared a barrier to commencing sexual activity, as indicated by the difference in self-esteem between male virgins and non-virgins. This was not the case for female virgins, who had similar self-esteem as their sexually experienced sisters. Thus, males had the lowest and highest self-esteem scores depending on whether or not they were sexually active.

Self-esteem may determine adolescents' participation in certain health habits for example information seeking. The HIV/AIDS knowledge base of adolescents may therefore depend on whether they are confident and competent enough to seek and assimilate this knowledge. Whatever the case, knowledge about HIV/AIDS impacts adolescent reproductive health.

### **HIV/AIDS Knowledge**

The first AIDS cases were reported in Ghana in 1986. According to the 1999 National AIDS Impact Model (AIM), an estimated 400,000 Ghanaians aged between 15-49 are

currently living with HIV. At current rates of infection, it is estimated that in the year 2000, there will be 62,000 new cases of AIDS, and by 2009, more than 1 million people will be living with HIV in this country.

Knowledge of STDs among the total population of Ghana is quite high: about 97 per cent of males and 94 per cent females (Awusabo-Asare and Anarfi, 1995). Considering individual STDs, on the other hand, gonorrhoea is the most well known (93.6 per cent for males and 88.9 percent for females). In contrast, knowledge about AIDS is higher among females (83.3 per cent) than among males (81.3 per cent).

The extent to which adolescents may be exposed to sexually transmitted diseases and AIDS may largely depend on their knowledge of these diseases, their mode of transmission and their effects. Nabila and Fayorsey (1996) reported that overall, knowledge appears to be generally highest about AIDS, Gonorrhoea and Syphilis, among both females and males. Data obtained from a limited number of studies related to the impact of HIV/AIDS education on the youth suggest that though knowledge is high, over 70 per cent of young people in Ghana do not consider themselves at risk (UNAIDS Strategic Plan for Ghana 1997-2000). In Nigeria for instance, Onifade (1999) reported that young people are particularly vulnerable to sexually transmitted diseases STDs because they know little about them. AIDS was however, the best known (70 per cent) of males and (74 per cent) of females. Thus in Nigeria, knowledge about HIV/AIDS is greater than about other STDs. There are more than 1.5 billion young people (between the ages of 10 and 24) in the world today; 85% of them live in developing countries. Between 1970 and 2035, the urban

adolescent (between the ages of 10 and 19) population in developing countries will grow by 600%. In the least developed countries, only 13% of the girls and 22% of the boys enroll for secondary education. Globally, 5 out of every 10 unemployed are young people; in some developing countries it is 8 out of 10. 73 million adolescents between the ages of 10 and 14 are working worldwide.

### **Young People and HIV/AIDS**

There is evidence that new HIV infections in the younger age groups continue to rise as the overall proportion of people living with HIV/AIDS falls (WHO,1995). Globally, more than half of all new HIV infections are among the 15 - 24 age group. In most parts of the world, the majority of new infections are in young people between the ages of 15 and 24, sometimes younger. In one study in Zambia, over 12% of the 15 and 16 year-olds seen at antenatal clinics were already infected with HIV. Girls appear to be especially vulnerable to infection. Although statistics from Uganda show that, in some areas, infection rates among teenage girls have dropped 50% from 1990, incidence rates are still six times higher than in boys of the same age. In South Africa, the proportion of pregnant 15 to 19 year-olds infected with HIV rose to 13% in1996 from around half that level just two years ago. In Botswana, the infection rate stood at 28% for the same group in 1997. Young people may know of the risks of unprotected sex but feel AIDS could not possibly happen to them. In Malawi, most young men and women know how AIDS is transmitted and how it can be prevented. However, many feel invulnerable to the virus. Some 90% of teenage boys said they were at no risk or at minimal risk of infection, even though nearly half of them reported at least one casual sex partner over the last year, and condom use was low.

### **Adolescents: Greater Risks of STD Infection**

Experimentation, though a normal part of adolescent development, also exposes them to health risks. Young people's sexual relations are often unplanned, sporadic and, sometimes, the result of pressure or force. Sexual relations typically occur before adolescents have gained experience and skills in self-protection, before they have acquired adequate information about STDs, and before they can get access to health services and supplies (such as condoms). Even when they do get condoms they do not plan their sexual activity and thus may not have some available when they want to have sex. Young girls are especially vulnerable for physiological, social and economic reasons. Chlamydia infection during adolescence is more likely to result in pelvic inflammatory disease and as a consequence, lead to infertility. It is also more likely to result in cancer of the cervix. Stigma and embarrassment associated with STDs can impair psychological development and attitudes towards sexuality later in life. The diagnosis of STDs is more problematic during adolescence: the STD may be asymptomatic, especially in young women; even if adolescent know about existing services, they are often reluctant to seek help for diagnosis and treatment. Adolescents often have difficulty complying with treatment because it may be lengthy (such as in the case of chlamydia), painful (venereal warts) and sometimes embarrassing.

### **Sexually Transmitted Diseases**

Of the estimated 333 million new STDs that occur in the world every year, at least 111 million occur in young people under 25 years of age (WHO, 1993). Sexually transmitted

diseases (STDs) are among the most common causes of illness in the world and have far-reaching health, social and economic consequences. In addition to their sheer magnitude, STDs are a major public health problem for two additional reasons: serious complications, and the fact they facilitate transmission of HIV (WHO, 1993).

Logically, when people have abundant information they are able to make informed decisions because they have what it takes to assess their risk and act accordingly. Armed with HIV/AIDS knowledge therefore, it is expected that adolescents will be able to correctly perceive or assess the risk factors involved in HIV/AIDS infection so that they can protect themselves.

#### **Risk Perception**

Many young people do not believe that pregnancy or STD could result from their lovemaking (Sorensen, 1973). Some adolescents seem not to be able to distinguish between chance events and those under direct control. Research has suggested that understanding notions of chance and probability may be an important factor in sexual risk-taking during adolescence (Baizerman, 1977; Cobliner, 1974; Cvetkovich, Grote, Bjorseth, and Sarkissian (1975). This may fit well into the perceived invulnerability hypothesis cited as a ready explanation for why adolescents take risks. Thus, adolescents may ignore or at least greatly underestimate the likelihood of bad outcomes.

The most frequently cited theoretical basis for adolescent perceived invulnerability is probably Elkind's (1967) concept of adolescent egocentrism, which postulates two phenomena occurring when adolescents try to conceptualize the thoughts of others:

- the imaginary audience, in which adolescents fail to differentiate others' thoughts from their own (seeing themselves as being central to others' thinking as they are to their own).
- the personal fable, in which adolescents over differentiate their thoughts and feelings from those of others.

Elkind argued that adolescents' personal fable involved a notion of uniqueness so strong that it "becomes a conviction that he will not die, that death will happen to others but not him" (p.1031). Elkind noted that his theory was largely speculative, being based entirely on anecdotal evidence from his clinical patients. Although this article has been cited widely, there is relatively little systematic evidence supporting the theory.

Indirect support for the perceived invulnerability hypothesis might be found in studies such as those summarized by Cvetkovich, Grote, Bjorseth, and Sarkissian (1975) and Morrison (1985). They concluded that between one-third and one-half of sexually active adolescents explain not using contraceptive with variants of "I thought I (or my partner) couldn't get pregnant" (p. 553). Nevertheless, Quadrel, Fischhoff and Danis (1993) point out "the exaggerated perceptions of invulnerability need not reflect generalized magical thinking" (p. 104). Rather they may be the result of specific misunderstandings about reproductive processes. Shackle and Fischhoff (1990) have intimated that such misperceptions might be just as common with adults, producing similar underestimation of personal risk.

In spite of the imminent danger to adolescent health posed by STDs including the HIV/AIDS, many young people may not perceive the threat of AIDS as real or immediate. School-based surveys of attitudes and beliefs about AIDS in the US have indicated that the majority of adolescents do not feel susceptible to AIDS (Price, Desmond, & Kukulka, 1985; Strunin & Hingson, 1987). Other research has shown that judgments of health risks and other unpleasant life events tend to be biased in the direction of minimization of risk (Burger & Burns, 1988; Larwood, 1978; Perloff, 1983; Weinstein, 1982, 1984). According to Gladis et al (1992), inaccurate beliefs about risks are likely to lead to irrational or misguided decisions about whether to engage in preventive efforts. The denial or minimization of risk for acquiring AIDS for example is a serious problem for education campaigns designed to alter high-risk behaviors. The successful development and application of health behavior models would therefore seem to require an increased understanding of the psychological aspects of perceived risk.

Thus, it is assumed that when a person clearly understands the factors that influence his or her susceptibility to acquiring HIV/AIDS and has an internal locus of control, then he or she will be able to do something about his or her situation.

### **Locus of Control**

Researchers over the years have tried to find out whether there are particular types of people who are more likely than others to practice preventive health behaviors. Personality variables have been explored for this impact on the practice of preventive health behavior. One such variable that has received attention is locus of control (Lau, 1988; Rotter, 1966;

Strickland, 1978). The concept grew out of social learning theory and maintains that behavior occurs as a function of chronic expectations about reinforcements in a given situation. The internal-external dimension defines an individual's generalized belief about the source of reinforcements. Individuals with an internal locus of control are more likely to believe that reinforcements are consequent to their own behavior, whereas individuals with an external locus of control tend to see their reinforcements as under the control of external agents - that is, as less dependent on their own actions and more dependent on other people or chance (Rotter, 1954).

Researchers have hypothesized that "internal" individuals are more likely than "external" individuals to engage in preventive health behaviors because they see these steps as helping to protect them against poor health. A review of these studies (Strickland, 1978) indicates that this hypothesis is plausible. Most research suggests that individuals with an internal locus of control are more likely to assume responsibility for their own health. They may practice better health behaviors, guard more against accidents, and gather more information than individuals with an external locus of control. Adolescents may come under very intense pressures from some psychosocial factors like poverty and peer pressure, which may make their locus of control of no consequence. Drug use could also change the emotional state of adolescents and this has implication for risk perception.

### **Psychological Distress (anxiety)**

There are several emotional and motivational states for instance the desire to allay feelings of fear or anxiety that could lead to distorted probability estimates. Evidence of a relationship between perceived risk and emotional distress has also led to speculation about the role of defensive denial. Bauma and Siegel (1987) reported a relationship between psychological symptoms and perceived riskiness of sexual behavior among homosexual men. Low psychological distress was associated with minimization of risk among them.

The threats to adolescent mental health are enormous because of the many youth who engage in at-risk behaviors or who are exposed to deleterious conditions that jeopardize their development (Dryfoos, 1990 & Hechinger, 1992). At-risk behaviors refer to those activities that increase the likelihood of adverse psychological, social and health consequences. One example of at-risk behaviors, substance use and abuse, often begin in adolescence. Alcohol, cigarettes, marijuana, opiates, hallucinogens, sedatives, and tranquillizers, often in different forms, e.g. crack and other forms of cocaine, are the substances commonly abused.

Substance use is merely one example of at-risk behavior. A number of examples have been identified including unprotected sexual activity and its risk for sexual transmitted diseases including HIV/AIDS and teen pregnancy. Adolescents find engagement in these at-risk behaviors an escape route to deal with the stresses they go through. However, this escape can lead to behaviors that engender more stresses. Alcohol for example, impairs judgment,

which more often than not results in poor sexual decision making that can lead to pregnancy or infection by STDs including HIV/AIDS.

Whenever the assessment of risk becomes deficient, it impacts heavily on the health seeking behavior an adolescent will adopt in order to prevent himself or herself from endangering his or her life.

### **Theoretical Models of Health Seeking Behavior**

There have been many models that have attempted to explain why people practice health behaviors. This study is cast within the Health Belief Model, Social learning Theory, the Theory of Planned Behavior and the Theory of Reasoned Action. The most highly influential and widely researched theory of why people practice health behavior is the health belief model (Hochbaum, 1958; Rosenstock, 1966). This model states that whether or not a person practices a particular health behavior can be understood by knowing two factors: the degree to which the person perceives a personal health threat and the perception that a particular health practice will be effective in reducing that threat. The perception of a personal threat is itself influenced by at least three factors:

- general health values
- specific beliefs about vulnerability to a particular disorder; and

- beliefs about the consequences of the disorder (that is whether or not they are serious).

Whether or not the perception of a threat leads to changing health behavior also depends on whether a person believes a health measure will reduce that threat. This also breaks down into two components:

- whether or not the individual thinks a particular health practice will be effective against the disorder in question
- and whether the cost of undertaking that measure exceeds the benefits of the measure.

**Janz and Becker (1984)** examined forty-six studies using the health belief model to identify which components best predict the practice of health behaviors. Overall, perceived barrier to the practice of health behavior was the most powerful dimension influencing whether or not people actually practice a particular health behavior. Perceived susceptibility to a health problem was also a strong factor.

Another cognitive theory that attempts to integrate attitudinal and behavioral factors of health seeking behavior is Fishbein and Ajzen's theory of reasoned action (Ajzen and Fishbein, 1977, 1980; Fishbein, 1965, 1972, 1980). According to this theory, health behavior is a direct result of a behavioral intention - that is of whether or not one intends to

perform health behavior. Behavioral intentions are made up of two components: attitudes toward the action and subjective norms about the appropriateness of the action.

Attitudes toward the action are based on beliefs about the likely outcomes of the action and evaluation of those outcomes. Subjective norms derive from what one believes others think one should do (normative beliefs) and the motivation to comply with those normative references. The factors combine to produce a behavioral intention, and ultimately, behavior change. What is the value of thinking about health habits from the standpoint of this theory? A strong element of Fishbein and Ajzen's approach is that behavioral intentions are measured at specific rather than a general level. That is when people are asked about very specific attitudes and normative beliefs; it is possible to obtain a fine-grained picture of their intentions with respect to a particular health habit. The advantages of this specific assessment can be seen in considering an adolescent female's attitudes and practices regarding birth control. She might be favorable toward birth control in general and have a general intention to practice contraception. At the same time, however, she might be highly resistant to certain specific methods of birth control that are available to her. For example, she might be fearful of using birth control pills because of potential side effects, and she may not wish to use a barrier method, such as condoms, because she values spontaneity in her sexual relationships.

Consequently, a general assessment of her intention to practice birth control would suggest that she might engage in these behaviors, whereas the specific assessment of her intention to use particular methods would highlight the sources of resistance to these specific methods of making good on that general intention.

Ajzen and his associates (Ajzen, 1985; Ajzen and Madden, 1986) undertook a revision of Fishbein and Ajzen's theory, which they call The Theory of Planned Behavior. They argue that in addition to knowing a person's attitudes, subjective norms, and behavioral intentions with respect to a given behavior, one needs to know his or her perceived behavioral control over that action (Bandura, 1986). In a test of the revised model, they found that people not only need to hold a behavioral intention toward a particular attitude object but must also feel that they are capable of performing the action contemplated and that the action undertaken will have the intended effect. Thus, feelings of perceived control and self-efficacy also appear to be important in demonstrating attitude-behavioral intentions to act on an attitude.

The theory of reasoned action as originally formulated applies well to behaviors that are under personal control. However, if behavior is influenced by factors over which people have only limited control then, their perceived self-efficacy, or ability to carry out the recommendations, becomes an important predictive factor. The theory of planned behavior, then, adds this additional element to cover behaviors that may not be under personal control.

Inclusion of the normative component in the Fishbein - Ajzen model is an important element in the theory, because normative influences are known to have a profound effect on health behaviors.

The theory of planned behavior maintains that people will perform a health behavior if they believe that the advantages of success outweigh the disadvantages of failure, if they believe that other people with whom they are motivated to comply think they should perform the behavior and if they have sufficient control over internal and external factors that influence the attainment of the behavioral goal.

These behavior change theories emphasize the active participation of the individual in the intervention process. It is therefore important for sex education programs in particular and prevention programs in general to stress the critical role individuals play in bringing about change.



### **Sex Education and Prevention Strategies**

Much controversy surrounds the appropriateness and value of sex education in community and public school settings (Sorenstein & Pittman, 1984). Champions of quality sex education, claim that such instruction can lead to delays in sexual activity, increased contraceptive use, and promotion of responsible sexual decision- making (Gordon & Scales, 1979). Opponents argue that such programs give kids "ideas," lead to increased incidence of sexual intercourse, and encourage early experimentation (Parlor, 1982).

Some of this controversy has been resolved and therefore, the debate is no longer whether sexuality and AIDS education should be taught, but what should be taught and the best way to teach it. Advocates of comprehensive sexuality and AIDS education acknowledge that many teenagers are sexually active and deserve information about sexually transmitted

of published evaluations of abstinence programs, Kirby and Coyle (1997) concluded that the weight of the evidence indicates that they do not delay the onset of intercourse. One study showed that differences in attitudes about abstinence or behavioral intentions were not seen as early as 3 or 4 months after an exposure to an abstinence- only curriculum (Moose, Sugland, Blumenthal, Gleit, and Snyder, 1995).

Generally, prevention programs tend to fall into three broad categories. They include those that provide information relevant to high risk behavior and those that teach skills to prevent engagement in high - risk behavior (e.g., decision making, resisting peer pressure), often referred to as "life skills (LST). Some of the programs included under life skills training also target psychological variables associated with high risk behavior (e.g., low self-esteem or perceptions of control). A third miscellaneous group of programs target particular behaviors or outcomes such as teenage pregnancy, sometimes using strategies that apply only to the particular targeted behavior. (Stipek, 1999).

The informational approach focuses on technical information (e.g., data on STDs /HIV/AIDS and the biology of reproduction). Because there is evidence that adolescents overestimate the prevalence of various high - risk behaviors, some programs include normative information designed to change students' perception of a high - risk behavior as normative (Chassin, Presson, and Sherman, 1995; Falco 1992). Also the information provided is often chosen with the specific goal of creating a sense of personal vulnerability; thus, concrete cases accompanied by graphic, verbal and visual materials are common.

Prevention programs, using the life skills training approach, have been designed to help adolescents develop skills assumed to have indirect or direct impact on their behavior and psychological well being (Compas, 1993). Typical LST programs include activities designed to help adolescents develop:

- social competence, including communication skills, social problem solving and ability to develop and maintain friendships;
- decision - making skills, such as defining a problem, generating and evaluating solutions before acting, taking action, and re-evaluating;
- strategies for dealing with threats and challenges; emotions and stress management strategies
- greater self - esteem and sense of control; assertiveness in changing one's environment
- an understanding of the effects of media on perceptions and beliefs.

Some programs teach relaxation methods to help students cope with anxiety and stress. Other related topics covered in LST - type intervention programs include personal responsibility and communication with parents (see, Compas, 1993; Hamburg, 1990; Wills, Vaccaro and Benson, 1995).

### **Which strategy works best?**

Although the scare tactic approach has been shown to have immediate effects on attitudes (Leventhal and Keeshan, (1993). The research evidence on information- oriented programs, including those that involve scare tactics, is clear and consistent. Programs that have been studied do not affect behaviour (Brooks-Gunn and Paikoff, 1993; Dusenbury and Falco, 1995; Leventhal and Keensham, 1993; Thompson, 1978; Windle, Shope, and Bukstain, 1996). There is some evidence that informational programs actually stimulated students' curiosity and may have increased experimentation (Blum, Blum, and Garfield, 1976; Falco, 1992; Kohn, Goodstadt, Look, Sheppard, and Chan, 1982; Rundall and Bruvold, 1988).

Evaluation studies strongly support LST over the information approach and other approaches that stress values (Botvin et al., 1995; Bruvold, 1993; Guerra et al., 1984; Hansen, 1993; Tobler, 1986, 1995). Studies have also suggested the value of particular LST approaches. Tobler and Stratton (1997) showed, for example, that interactive programs (with students actively participating by interacting with each other, brainstorming, sharing ideas, practicing new behaviors etc) had sufficiently greater effects than more didactic programs in which students play a relatively passive role (Stepik, 1999). Programs that included media influences, normative expectations, and intra-personal skills (e. g. goals setting and decision making) along with social skills (e.g., communication and assertiveness) showed stronger effects than programs that stressed only social skills.

In one study, the most important components of prevention programs were identified through discussion with a panel of 15 leading experts in prevention research. After extensive interviews with the panel members, Dusenbury and Falco (1995) concluded that success is most likely to be achieved if the program includes;

- **developmentally appropriate information;**
- **social resistance skills training;**
- **information about the normative behavior (e.g., to show that sexual intercourse is not as prevalent as many students believe).**
- **interactive teaching techniques (e.g. role - playing, discussion, and small- group activities);**
- **broad - based skills training (e.g. decision making, goal setting, communication, social skills, and stress management) and comprehensive health education;**
- **adequate coverage and sufficient follow-up ; and**
- **cultural sensitivity.**

Over the past twenty years, certain misconceptions (see Kirby, 1999) about solutions to adolescent sexual behavior have been clarified. Twenty years ago, it was thought that increasing knowledge about sex, contraception, and sexuality more generally would reduce teen sexual risk taking behavior and reduce teen pregnancy rates. Many people in the field recognized that the youth believed in various myths (e.g., you won't get pregnant, the first time you won't get pregnant if you have sex standing up; it won't happen to me). Program developers believed that if they corrected these myths and provided accurate information, about the probability of pregnancy and STDs and methods of protecting against pregnancy and STDs, then the youth would use that information, act more rationally, and refrain from having as much unprotected sex. In short, some people believed that increasing knowledge would have an impact on behavior although few program developers perceived increasing knowledge as the panacea for teen pregnancy. Twenty years of research has informed the field that knowledge level is only weakly related to behavior (Whitley and Schofield, 1986) " and that programs that focus on knowledge acquisition do increase student's knowledge, but they do not significantly change sexual or contraceptive behavior". However, this does not mean ignorance is the answer, ignorance is not the answer; knowledge does help build the foundation for behavioral change. Albeit, increasing knowledge, alone, is typically insufficient to change behavior

Many people also believed then (i.e., twenty years ago) that if access to contraception was improved, then more sexually active teens would use contraception. Thus, for example, many people supported school-based clinics, which provided more convenient access to contraception.

Most studies reviewed by Kirby(1999) that have been conducted during the past 20 years have indicated that improving access to contraception does not significantly, increase contraceptive use or decrease teen pregnancy. For example, in the US, some schools opened clinics that provided contraceptives, employed clinic staff who could relate to youth and were trained in adolescent medicine, made contraceptives available free of charge, and offered a variety of health services so that contraceptive visits would be confidential. The results were that students did obtain a wide range of health services, significant numbers of sexually active youth did obtain contraceptives from the clinics, and a few students who would not have obtained contraceptives anyway probably did so through the clinic, but school-wide rates of contraceptive use typically did not increase and pregnancy rate or childbearing rates did not decrease (Kirby, Waszak and Ziegler, 1991; Kisker, Brown, and Hill, 1994). When community clinics improved their programs to make them more adolescent friendly, the percentage of sexually active youth in communities near those clinics who used contraceptives did not increase (Hughes, Furstenberg and Teitler, 1995).

On the other hand, more comprehensive multi-component interventions that included the provision of contraception did appear to increase contraceptive use. For example, after the Self Center in Baltimore provided educational, counseling and reproductive health service, contraceptive use appeared to increase (Zabin, Hirsh and Smith, 1986). Similarly, a media campaign in Portland, Oregon also in the United States, in combination with improved access to condom and instructional components led to an increase in condom use with casual partners (Polen & Freeborn, 1995). Thus, simply improving access to contraception

has not appeared to markedly increase contraception use, but improving access to contraception and doing other things to motivate teens to use contraception may lead to greater contraceptive use.

Again, it was believed that increasing parent-child communication about sexuality would reduce teen sexual risk taking behavior. Thus, if parents would communicate more with their own children about sexuality - if they would convey accurate information, answer their children's questions, and express their own beliefs and values - then adolescents would act in a manner more consistent with that knowledge and those values, and would either initiate sex later in life or use contraception more consistently if they had sex.

Reviews of numerous studies of the impact of parent-child communication about sexuality upon adolescent sexual behavior conclude that there are no simple relationships between such communication and adolescent sexual behavior (Kirby, 1999). Some studies suggest there is no relationship; others too suggest that greater communication is associated with more sexual risk-taking behavior (possibly because the parents anticipate that sexual behavior), and other studies indicate that greater communication is associated with less sexual risk-taking behavior (Miller, 1998). It may be the case that greater communication has positive effects under some conditions, but not others. Although many adults and also adolescents believe that greater parent-child communication about sexuality is a good thing, in and of itself, simply increasing parent-child communication about sexuality probably does not have the marked behavioral impact that was once believed it had.

Instead, other qualities of family interaction for example, overall connectedness may be far more important (Resnick, Bearman, Blum, et al. 1997).

The body of research over the past 20 years (Kirby, 1999) has not only clarified some misconceptions but has also created two new pillars which can be well substantiated by multiple research studies: Sex and HIV education programs with specific characteristics can reduce sexual risk-taking behavior and some youth development programs can reduce teen pregnancy and childbearing. Numerous studies reveal that there are two broad groups of antecedents of adolescent sexual risk-taking behavior that have the potential for being changed. The first group is the sexual antecedents (e.g., sexual beliefs, attitudes, skills, efficacy and intentions. These can be addressed by sex and HIV education programs and other reproductive health programs. The second group is the nonsexual antecedents. At the individual level they include school performance, belief in the future, and general risk-taking behavior. At the family and community level, they include many manifestations of poverty, social disorganization, and connectedness.

### **Sex and HIV/AIDS Education Programs**

Several studies have now demonstrated that sex and HIV education programs with specified characteristics can delay the initiation of sex, reduce the frequency of sex or increase the use of condoms or other forms of contraception (Jemmott, Jemmott and Fong, 1998; St Lawrence, Jefferson, Alleyne and Brasfield, 1995; Kirby, Barth, Leland and Fetro, 1991, Main and Inversion,, McGloin, et al. 1994). Thus they have the potential of reducing

unintended pregnancy and STD, including HIV. These programs may be especially effective with high-risk youth (Kirby, 1999)

Kirby (1999) outlined the component of an effective curriculum as one that:

- focuses on reducing one or more sexual behaviors that lead to unintended pregnancy or HIV/AIDS infection;
- is based upon theoretical approaches that have been demonstrated to be effective in influencing health-related behaviors
- specifies the risk and protective factors to be modified by curriculum activities;
- gives a clear message by continually reinforcing a clear stance on these behaviors;
- provides basic, accurate information about the risks of unprotected intercourse and methods of avoiding unprotected intercourse;
- includes activities that address social pressures on sexual behaviors;
- provides modeling and practice of communication, negotiation and refusal skills;

- **employs a variety of teaching methods, and materials that are appropriate to age, sexual experience, and culture of the students;**
- **lasts a sufficient length of time to complete important activities adequately; and**
- **.selects teachers or peers who believe in the program they are implementing and then provides training for these individuals.**

#### **Importance of ethics and substance use in HIV/AIDS intervention programs**

So far, none of the curricula reviewed looked at the critical role alcohol and substance use play in high sexual risk behavior and their implication for STD/HIV intervention. Likewise, none considered the need to highlight sexual and AIDS education as an ethical issue even though, the supporters of comprehensive sexuality and AIDS education have **recently** affirmed that "sexuality includes physical, ethical, spiritual, psychological and emotional dimensions" and, thus, truly comprehensive education must deal with the ethical dimensions of sexuality (National Guidelines Task Fore, 1993).

Against this background, it is imperative to consider the possibility of integrating alcohol and substance use effects on HIV in developing HIV interventions. To this end, the revealing study of McNair (2000) gives us some useful and significant guidelines. From her study, it is evident that to decrease HIV risk, program developers must actively **target**

alcohol and substance use, in concert with risky sexual behavior. McNair posits that it is essential for program developers to make explicit the link between substance use and risky sexual behavior and also emphasize the power of expectancies and their role in guiding sexual behavior. It is also very important for alcohol and substance use assessment to be included in HIV risk for self and partners across situations. McNair (2000) asserts in agreement with Fisher and Fisher (1995) that communication and negotiation skills need to be "over learned" citing "one-liner responses" as an example.

Rest and Narvaez (1991) believe that ethics should be central to sexuality and AIDS education curricula, defining ethics as the set of principles individuals use to determine what behavior is right and good in their relationship with others. The significance of this suggestion is brought to the fore when one sees adolescence as a time when the foundations of one's ethical principles are formed, particularly regarding sexuality. Today, youths need to be exposed to an ethical framework that will help them to make more responsible decisions regarding their sexual behavior. As a result Rest and Narvaez (1991) propose that students should be challenged more directly to think about what is good, ethical, and decent in their sexual relationships. If ethical principles are explicitly taught and ethical questions raised in sexuality and AIDS education, adolescents can become partners in developing a more responsible code of behavior.

How can sexuality and AIDS educators give direction and purpose to their curricula, raise ethical questions about sexual behavior, and help students make more responsible choices?

One way is to incorporate some of the principles developed from research on children's moral behavior.

In their review of moral education courses, Rest and Narvaez (1991) provided insight into why current sexuality and AIDS education courses are ineffective in changing adolescents' attitudes and behaviors. While they conclude that "there is evidence that particular types of moral intervention programs are effective in promoting development of moral judgment", these programs do not succeed in changing behavior. This conclusion is corroborated by research indicating that the relationship between moral judgment and prosocial behavior is not very great (Eisenberg and Mussen, 1990). Thus, moral reasoning may be essential to moral behavior, but it is certainly not sufficient.

Rest and Narvaez (1991) argue that this discrepancy occurs because intervention programs focus on moral judgment and ignore other internal processes necessary for moral behavior. Perhaps students need to be provided with a richer, more complete model of what it means to be an ethical person. To this end, Rest's (1984) classification of moral behavior appears to be particularly promising. Rest suggests that there are four major internal processes that produce moral behavior, only one of which is moral judgment. The others are moral sensitivity, moral motivation and moral character.

Moral sensitivity consists of interpreting a social situation. This includes the meaning of social actions and becoming sensitive to the feelings of others; role-taking and empathy would be the qualities emphasized. Moral judgment involves formulating a plan of action.

This means making judgments about the proper course of action and explaining the rationale behind such action. Basically it answers the questions: What should I do? And Why? Moral motivation consists of deciding what one intends to do. Research shows that there is often a discrepancy between what one thinks should be done and what one actually does (Rest, 1984). As a result, it is important to be aware of one's motives and the priority of one's moral values so that such values are not compromised by competing motives and values that might alter behavior. This entails considering the factors that influence the decision - making process and answering the questions: What motivates moral behavior? Where do moral values come from and when does one's moral obligation over ride cost/benefit calculations? Moral character involves executing a plan that will overcome impediments to acting on one's moral convictions. This encompasses determining the sequence of concrete actions, overcoming unexpected difficulties, and resisting distractions, often by drawing on one's inner strength. Since according to Rest (1984), moral behavior involves all four components, inconsistency between knowledge and behavior can be the result of a deficiency in one or more of these areas.

#### **Why Study Ghanaian Adolescents?**

The study of adolescent sexual behavior and HIV/AIDS prevention in Ghana is important, timely and necessary for a number of reasons. First, there is paucity of literature on the contribution of psychological variables for example, self-esteem, anxiety and locus of control to the understanding of adolescent sexual behavior and HIV/AIDS prevention.

Studies done so far (e.g., Nabila and Fayorsey, 1996) have concentrated on demographic variables such as gender, religion, peer pressure and poverty. This study therefore, sought to bridge this gap.

Second, the magnitude of the adolescent population in Ghana demands a periodic study into the dynamics of their sexual behavior in order to make any strides in curbing the HIV/AIDS menace. On average, one in every five persons in Ghana is an adolescent aged 15-19 years. The popular saying that “the youth are the future leaders of tomorrow” cannot materialize if they are not protected them against HIV/AIDS, as well as preserved as potential resource for socioeconomic development.

Third, the study of adolescent sexual behavior is very crucial to any effort in search of solutions to the HIV/AIDS pandemic. This is because there is evidence that new HIV/AIDS infections in the younger age groups continue to rise as the overall proportion of people living with HIV/AIDS falls. Globally, more than half of all new infections are among the 15-24 age group.

By encouraging adolescents to talk about their sexuality in the open, misconceptions that lead them into becoming sexually active can be addressed. Again, since this study seeks to provide data on some of the psychological correlates of adolescent sexual behavior, it could succeed in helping fight the HIV/AIDS scourge from another angle.

**CHAPTER THREE**  
**METHODOLOGY**

**Introduction**

Concern about the health status of the youth has increased in recent years and views of adolescence as a healthy decade are being changed. Adolescents presumably experience more risk outcomes than they themselves would like. With the increasing numbers of HIV/AIDS infections particularly among the youth, it is imperative for us to understand adolescent sexuality and the psychological variables that influence adolescent perception of risk of contracting HIV/AIDS. It is also important to pilot interventions that would help adolescents manage their sexuality more effectively. It is in the light of the above that this study was conducted.

**Design**

The study was in two parts: a survey for identifying the psychological correlates of adolescent sexual behavior and a repeated measures design for evaluating an intervention program named Sense and Sexuality. Sense and Sexuality sought to help adolescents prevent pregnancy, HIV/AIDS infection and STDs. Sense and Sexuality was based upon theoretical approaches that have been demonstrated to be effective in influencing health – related risky behaviors.

**Subjects:**

Data for the study was collected using 240 adolescents of ages between 15-20 years old. The subjects were randomly selected from three day secondary schools in the Ga North District and the Greater Accra District. The schools were selected randomly after a pool of day secondary schools in the catchment area had been made.

These are The West Africa Secondary School (WASS) Madina, Christian Methodist Secondary School-Asylum Down, Accra, and O'Reilly Secondary School- Adabraka, Accra. These schools are mixed schools. Two of the schools, Christian Methodist Secondary School and O'Reilly Secondary School are at the center of the city of Accra. West Africa Secondary School is however located in a suburb with growing residential apartments. Drug abuse seems to be widespread in WASS as compared to the other two schools. In terms of discipline, WASS was the most indisciplined. Some of the students interviewed reported a break down in discipline at WASS.

Only two students participated in the study for the simple reason that they were the group who had time as well as considerable familiarity with the secondary school system. The other three students were busy preparing for their final examination while the other one student was deemed to be inexperienced in the secondary school system.

For the intervention, interest and willingness to stay till the end of the programme were critical in selecting participants. In addition, an appeal went to interested students to examine themselves thoroughly vis-à-vis the objectives of the intervention before deciding to participate. This was to make sure that at least students who participated had a personal need or justification to be there.

## **Survey Measures**

### **Perceived Risk**

Perceived risk for acquiring HIV/AIDS was measured in two ways. The first question “What are your chances of getting AIDS?” asked subjects to report absolute risk whereas the second question “Compared to other students, what are your chances of getting AIDS?” focused on comparative risk. Subjects were asked to rate their responses to these items on a 8-point Likert scale ranging from “don’t know” to “to almost certain” for absolute risk and from “don’t know” to “much more” for comparative risk. Similar items have been used in previous studies of perceived risk (Joseph et al, 1987; Weinstein, 1982, 1984). Risk was divided into two levels: low and high. The eight responses were recategorised into two. Responses ranging from “don’t know” to “equal” were given the score zero (0), denoting low risk perception. Those ranging from “somewhat likely” to “almost certain” were assigned the score one (1) representing high risk perception. The same categorization was done for comparative risk: responses ranging from “don’t know” to “same” were given a score of zero (0) to represent low risk perception and those from “a little more” to ‘much more’, a score of one for high risk perception.

### **Virginity**

This was measured dichotomously with an item that asked whether the adolescent had experienced sexual intercourse or not.

### **Health-Enhancing Behaviors**

Health –enhancing behaviors comprised confidence to say no to sexual demands, stick with decision not to have sex, to buy condoms and finally to use condoms. It was measured by asking subjects to indicate their confidence level in executing the above behaviours. Responses ranged from “not at all confident”, “somewhat confident”, “totally confident” and “don’t know”. Condom usage at first sexual intercourse was ascertained by asking subjects to indicate whether they used a condom at their first sexual intercourse or not. Scoring was done by recoding the responses into two: “not confident” and “confident”. “Not at all confident” and “don’t know” were given a score of zero (0) representing “not confident”, whereas “somewhat confident” and “ totally confident” were given a score of one (1) meaning “confident”

### **Perceived Control**

The Internality Subscale of the Health Locus of Control Scale (IHLOC, Wallston and Wallston, 1978) was used as the measure of perceived control in this study. High scorers on the IHLOC are thought to feel personally responsible for their health, whereas low scorers are thought to believe that they have little control over their health outcomes. The scale is composed of six items using a six- point agreement format. Internal Health locus measures the extent to which one believes that internal factors are responsible for health or illness. The scoring above the median is labeled ‘low’ or “Health –External” and the scoring below the median is labeled “high” or “health –internals”. Externals refer to the belief that one’s

health is under the control of powerful others (i.e., doctors) or are determined by fate, luck or chance.

### **Self-esteem**

Self-esteem was measured by Rosenberg's (1965) Self-esteem scale, which has a reported reliability coefficient of 0.831 (Zeller and Camines, 1980). Scoring was done by reversing the scores for items 2, 5, 6, 7, and 9. For example, if a subject gave herself or himself "1" for item 2, she or he was given "5". Subsequently, scores for each item were added up. A score ranged from 10-50. High scores indicated high self-esteem. For the purposes of this study those scoring below the mean (36) were considered to be of low self-esteem and those scoring 36 and above were taken to be of high self-esteem.

### **Gender**

Subjects were asked to indicate whether they were male or female. Male was scored "1" and female, "2".

### **HIV/AIDS Knowledge**

Students were asked to complete a 26-true/false-item scale measuring knowledge about HIV transmission and prevention. The survey items on HIV/AIDS Knowledge consisted of 26 items. Each response earned a mark and the highest score was 26. Respondents were divided into High/Low Scorers. Scoring below the mean of 20 put one in the "Low" HIV/AIDS Knowledge bracket whereas scoring 20 and above put one in the "High"

HIV/AIDS Knowledge bracket. The scoring was based on the assumption that HIV/AIDS Knowledge is high among the youth.

### **Beck's Anxiety Inventory**

The Beck's Anxiety Inventory (Beck, 1988) was used to measure the level of anxiety. Beck's Anxiety Inventory (BAI) is a 21-item scale that has high internal consistency ( $\alpha = .92$ ) and test-retest reliability over one week,  $r(81) = .75$ . It was used to represent psychological distress.

The Beck's Anxiety Inventory (BAI), uses a 4-point scale in which scoring on each item of anxiety is from 0 to 3. For example:

“Unable to relax”

- 0 = Not at all
- 1 = Mildly, it did not bother me so much
- 2 = Moderately, it was very unpleasant but I could stand it.
- 3 = Severely, I could hardly stand it.

The level of anxiety is determined by the sum of the scores in all the columns for the 21 items. The minimum score obtainable is zero (0) while the maximum for the 21 items is 63.

## **Intervention Measures**

### **Self-efficacy:**

An adaptation of the German version of the general self –efficacy scale developed by Jerusalem and Schwarzer (1992) was used to assess the sexual self –efficacy of the subjects. The measure consisted of 10 items that dealt with one’s ability to overcome varied difficult sexual circumstances. Response categories ranged from (1) “not at all true” to (4) “exactly true”.

### **Chance Health Locus of Control:**

The Chance Health Locus of Control a sub-scale of the Health Locus of Control Scale authored by Wallston and Wallston (1978) was used to measure the extent to which subjects thought their health outcome was due to fate, luck or chance. High scores meant subjects felt responsible for their health or were in control of their health. The scale is made up of 6 items with a six-point agreement format.

### **Global HIV/AIDS Knowledge:**

A 30-item HIV/AIDS questionnaire was used to test the intervention subjects’ global knowledge of the HIV/AIDS pandemic. A correct response earned a respondent one mark. In this instance, Low Scorers were those who scored below the Mean (28). High Scorers were those above the mean. This scale was developed solely for the intervention. In addition to assessing knowledge of mode of transmission, cure and the social dimension of HIV/AIDS, it also assesses knowledge of the global picture of the epidemic in terms of its economic impact.

### **Validity of students' Self-report**

The validity of students' self-report of their sexual behaviours is a methodological issue that demands some discussion. There are several reasons for the confidence in the veracity of students' responses. It has been shown that assurance of anonymity increases reporting of sensitive information (Murray and Perry, 1997; US Department of Health, Education, and Welfare, 1977) and that interview and questionnaire methods yield almost identical rates of reported risky sexual behaviours (Aral, Magder, and Brown, 1989).

## **Procedure**

### **Consent and Confidentiality:**

Permission was sought from the school authorities for both the survey and the implementation of the intervention with selected students in the school. All the participants were invited to a meeting at which consent to participate in the intervention program was sought. Thus, the program was explained thoroughly and those interested wrote down their names. For each of the participating schools, the survey questionnaire was distributed among subjects and they were given the opportunity to ask questions for clarification. They were then asked to respond to the questionnaire independently without consulting their friends. They answered the questionnaire by ticking or circling appropriate responses. Also, in the survey, anonymity was assured; subjects were directed not to write their names or other identifying information on the questionnaire and were explicitly told that no one would know how they individually respond to the survey items.



### **Rapport and Ground Rules for the intervention**

After the initial group of 36 had confirmed their participation, the group met for the first time to get to know each other thereby establishing rapport among participants. At this same meeting, rules that were to govern the meeting were agreed upon as follows:

- i. no interruption when a member is making a contribution
- ii. issues discussed and experiences shared remain among the group; i.e., confidentiality should be assured
- iii. no name calling
- iv. every member must endeavor to make a contribution.

### **Over view of Prevention Program (Intervention)**

As indicated earlier, the prevention program was named Sense and Sexuality. Sense and Sexuality was a comprehensive, theory- based intervention program that equipped adolescents with knowledge, motivation and skills necessary to alter their behaviors in ways that will minimize their risk of pregnancy or contracting HIV/AIDS and other sexually transmitted diseases. For adolescents to alter their behavior, they do not require only information and perception of personal vulnerability but also the skills and confidence in their ability to act safely.

Sense and Sexuality was designed to be used with groups as large as thirty-five (35) to allow each and every member to interact and effectively participate in group work. It can be implemented in various community settings including schools or youth- serving agencies.

### **Duration and Instructional Component**

Sense and Sexuality consisted of 9 sessions of 90 minutes each. This was to make sure the subjects had enough time for rehearsal and behavioral skills training as a crucial component of an effective intervention curricula (Kirby, 1999). The main instructional components of the intervention were lectures, role-play and rehearsals.

### **Unique features of sense and sexuality**

Sense and Sexuality emphasized the ethical dimension of sexuality, which has been identified to be absent in most intervention programs (Rest and Narvaez, 1991).

In addition, Sense and Sexuality highlighted the consistent co-occurrence of a variety of risky behaviors related to sex and substance use, with the firm belief that focusing solely on sexual risk behavior as the outcome variable can dilute the effectiveness of an HIV intervention as clearly articulated by McNair (2000).

The intervention uses a communal approach. Thus, it stresses how HIV infection and AIDS have affected communities and the importance of safeguarding the community as a means to change individual risky behavior. This deviates from traditional prevention curricula that emphasize individuals' knowledge, attitudes, and risk behaviors. The subjects were made to understand and imbibe the need to adopt responsible and safe sexual behaviours to prevent the sexual transmission of HIV, not only for the sake of themselves but also for the sake of their families, sexual partners, children and community.

#### **Objectives of the Sense and Sexuality Intervention**

It is expected that at the end of Sense and Sexuality, adolescents will:

- increase their knowledge about HIV/AIDS and other STDs
  
- believe in the value of safer sex, including abstinence
  
- have confidence in their ability to negotiate safer sex
  
- be able to use condoms correctly

- practice safer sex
- reduce sexual risk behavior
- understand the link between substance use and risky sexual behavior
- understand the power of expectancies and their role in guiding sexual behavior
- increase their knowledge about the ethical dimension of sexuality.

**Evaluation of the Intervention:**

Pre-testing of the participants took place a day before the actual implementation. An evaluation questionnaire comprising the following was administered: Sexual Self-efficacy scale (adapted from the General Self-efficacy scale), Chance Health Locus of Control scale and Global HIV/AIDS knowledge questionnaire consisting of 30 items. There was post-testing immediately after the intervention to find out whether there had been changes in the evaluation measures.

Subjects were asked to indicate their level of satisfaction with the program content, style of presentation and time. They were also asked to assess how helpful the program had been to them, what personal difficulty had been addressed by the program, the kind of difficulty

they had with the whole program as well as their own degree of recommendation of the program to their friends.

### **Data Analysis**

Multiple regression was used to determine the contribution of predictor variables (demographics—gender, psychological distress—anxiety, HIV/AIDS Knowledge perception of control and self-esteem) to the main outcome variables (the two ratings of risk perception). Probit analysis allows dependent variables with more than two responses to be reduced to two alternatives. Qualitative choice models are used when the dependent variable involves two or more qualitative choices. Consequently, the response category of the two main dependent variables was recoded into two categories to fit the model. Thus, for instance, the 8- response category for the item “ what are your chances of getting AIDS” (don’t know to much more) was recoded to only two: low risk and high risk. Probit analysis takes into consideration the strength of the predicting stimulus or variable. The same model was used to estimate the predictors of health-enhancing behavior such as ability to buy condom and actual condom use.

For the intervention, repeated measures analysis of variance (ANOVA) for within subjects was used. The dependent measures were perception of control, sexual self-efficacy, and HIV/AIDS knowledge (see results).

## **CHAPTER FOUR**

### **RESULTS**

#### **DEMOGRAPHIC DATA**

One hundred and twelve (112) boys representing 46.7 per cent of the total number of subjects and one hundred and twenty –eight (128) girls who were 53.3 per cent of total subjects participated in the study. The mean age of participants was 17.8 years. Majority (84.2 per cent) of the subjects belonged to the Christian faith. The rest were Moslems (12.9 per cent) and adherents of other religious beliefs such as African Traditional Religion, Bahai and Buddhism (2.9 per cent). The age of subjects ranged from 15-22 years. Average age was 17.8 years. Certain age outcomes are worthy of comment. Sexually active adolescents in this study reported the mean age at first sexual intercourse at 14.8 years old. However, they indicated that the age they considered appropriate to start having sex was 16.9 years.

#### **MAJOR FINDINGS**

##### **Perception of risks of acquiring HIV/AIDS**

None of the variables expected to predict risk was significant. Thus neither internal locus of control, self-esteem anxiety or HIV/AIDS knowledge guaranteed an accurate assessment of risk ( see table 1 and 2).

**Table: Judgment of absolute risk***What are your chances of getting AIDS?*

	Don't Know	Not Possible	Very Unlikely	Somewhat Unlikely	Equal 50/50	Somewhat Likely	Very Likely	Almost Certain
%	5.4	55.0	14.2	8.8	2.1	7.5	5.8	1.3
n	25	132	34	21	5	18	14	3

**Table 2: judgment of Comparative Risk***Compared to other students, what are your chances of getting AIDS?*

	Don't Know	Much Less	Less	A little Less	Same 50/50	A Little More	More	Much More
%	10.4	30.0	21.3	10.4	11.7	5.0	5.0	6.3
N	25	72	51	25	28	12	12	15

Table 1 and 2 show the students' responses to the two items measuring perceived risk of AIDS. In response to the question "what are your chance of getting AIDS?" 55.0 per cent (i.e., 132 of the students) believed that it is not possible that they will get AIDS. 14.2 per cent reported it is very unlikely that they will get AIDS. When asked to compare their own risk of getting AIDS with that of other students, 83.7 per cent believed that they were at less risk than other students, with the most frequent response being "much less" (30 per cent).

**Table 3: Factors associated with perceived absolute risk (Hypotheses 1, 2 and 3)**

<u>Variable</u>	<u>Coefficient</u>	<u>Std Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
Gender	0.269869	0.211962	1.27197	0.2042ns
Self-esteem	-0.208914	0.211400	-0.988239	0.3241ns
Perceived C	-0.007868	0.015509	-0.507348	0.6124ns
Anxiety	0.001756	0.010062	0.174560	0.8616ns
HIV/AIDS K	0.038934	0.031304	1.243751	0.2148ns
<u>Constant</u>	<u>-1.802123</u>	<u>0865617</u>	<u>-2.230094</u>	<u>0.0267*</u>

\*  $p < 0.05$

ns: not significant

Table 3 above shows the results of a probit analysis that was to identify the predictors of perceived absolute risk. None of the variables hypothesized to be predictors of absolute risk was significant. Nevertheless, the inverse relationship predicted between perceived control and risk perception was found to be true. Thus, those who believed they had control over their health outcomes (high internal health locus of control) reported low risk of getting AIDS though as has been said already, the relationship was not significant. Also, there was an inverse relationship between self-esteem and risk perception indicating that the more they believed in themselves or became convinced of what they wanted to do the more they minimized or underestimated their risk.

**Table 4: Factors associated with perceived comparative risk (Hypotheses 1, 2 and 3)**

<u>Variable</u>	<u>Coefficient</u>	<u>Std Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
Gender	0.235064	0.208930	1.125084	0.2619ns
Self-esteem	-0.180801	0.208325	-0.867880	0.3864ns
Perceived C	0.007396	0.015528	0.476294	0.6343ns
Anxiety	0.019915	0.009715	2.049999	0.0415*
HIV/AIDS K.	0.006427	0.027963	0.229848	0.8184ns
Constant	-1.797684	0.806102	-2.230094	0.0267*

\*p<0.05

ns: not significant

The next analysis also used probit analysis to examine the contributions of these same variables to perceived comparative risk—the assessment of one’s risk relative to that of other students. As shown in table 4, the results indicate that only psychological distress, measured by Beck’s Anxiety Inventory, was significantly related to perceived comparative risk ( $t = 2.049999$ ;  $p < 0.05$ ). By feeling distressed, they were able to judge themselves as been more at risk, compared to their friends or peers.

#### **Hypothesis 4 Confidence in ability to buy Condoms**

The hypothesis that adolescents with high perceived control will report more confidence in engaging in health-enhancing behavior such as buying condoms, than those with low perceived control, was confirmed (see table 5).

**Table 5: Factors associated with ability to buy condoms (a health-enhancing behavior)**

<u>Variable</u>	<u>Coefficient</u>	<u>Std Error</u>	<u>t-Statistic</u>	<u>Prob.</u>
Gender	-0.301383	0.175004	-1.722152	0.0864**
Self-esteem	-0.376215	0.182034	-2.066735	0.0399*
Perceived C	0.030532	0.013910	2.194901	0.0292*
Sexual acti.	-0.407051	0.180615	-2.253697	0.0251*
HIV/AIDS K.	0.047875	0.025204	1.899495	0.0587*
<u>Constant</u>	<u>-0.526172</u>	<u>0.744173</u>	<u>-0.707113</u>	<u>0.4802ns</u>

\*p<0.05

\*\*p<0.1

Table 5 above shows the results of an attempt to predict health-enhancing behaviors. All the variables considered were significant predictors of ability to buy condoms. More females in the samples said they were not confident in their ability to buy condoms ( $t = -1.722152$ ;  $p < 0.1$ ). This is shown by the negative relationship between gender and confidence in the ability to buy condoms. Surprisingly, those who reported high self-esteem also reported no confidence in their ability to buy condoms ( $t = -2.066735$ ;  $p < 0.05$ ). Majority of those who were sexually active reported no confidence in their ability to buy condoms ( $t = -2.253697$ ;  $p < 0.05$ ). Perceived control over health outcomes is however positively related to ability to buy condoms ( $t = 2.194901$ ;  $p < 0.05$ ). According to the analysis, one's knowledge base in HIV/AIDS also predicts one's confidence in buying

condoms. Thus, those with high HIV/AIDS knowledge reported more confidence in their ability to buy condoms ( $t = 1.899495$ ;  $p < 0.05$ ) than those with little knowledge.

### **Hypothesis 5 Self-esteem and Condom Use at First Sexual Intercourse**

The hypothesis that reported condom use will be higher among adolescents with high self-esteem than those with low self-esteem was not confirmed. The reverse was however the case. Adolescents who reported high self-esteem did not use condoms at their first sexual intercourse (see table 6).

**Table 6: Self-esteem and Condom Use (Unprotected sex)**

			Condom Use		Total
			Yes	No	
Self-esteem	Low	Self-esteem	27(31.7)	23(27.1)	50(58.8)
	High	Self-esteem	10(11.8)	25(29.4)	35(41.2)
Total			37(43.5)	48(56.5)	85(100.0)

$$\chi^2(df = 1) = 5.416; p < 0.05$$

To find out the association between self-esteem and actual condom use, a chi square analysis was done and the result corroborated the inverse relationship between self-esteem and ability to buy condoms using the probit analysis (see table 5). Out of the 37 adolescents who used condoms during their first sexual intercourse, 31.7 per cent reported low self-

esteem whilst 11.8 per cent reported high self-esteem. Thus, sexually active adolescents who reported low self-esteem rather reported high usage of condoms at their first sexual encounter than those who reported high self-esteem. Thus, the hypothesis that there will be high reported incidence of unprotected sex (sex without condom) among adolescents with low self-esteem was not confirmed.

### **HIV/AIDS Knowledge**

The findings suggest that the students under study possessed an appreciable level of HIV/AIDS knowledge although this knowledge is uneven. With respect to disease transmission, 93.9 per cent of the students correctly indicated, "sexual intercourse was one mode of contracting HIV/AIDS". However, fewer students, 84.2 per cent, were aware that the "use of condoms during sexual intercourse may lower the risk of getting the disease. Though this is a rather small discrepancy, it suggests that some adolescents, while knowing the major route of disease transmission, nonetheless, will be engaging in unprotected sexual activity. Most of the subjects were aware that receiving infected blood from a transfusion (93.8 per cent) or sharing intravenous drug needles (89.6 per cent) were also identified routes of disease transmission.

Some of the other findings were that 95.8 per cent of students surveyed were aware that HIV/AIDS could not be spread by engaging in casual contact (e.g., shaking hands). With this high knowledge profile exhibited by the respondents, it is quite surprising that as many as 46.9 per cent was not informed regarding the treatment of AIDS. Only 28.3 per cent were aware that "no new vaccine was available for treating AIDS.

**Effects of Intervention on Subjects' Self-Efficacy, Perception of Control and HIV/AIDS Knowledge. Hypotheses 6, 7 and 8**

To explore the immediate impact of the intervention (Sense and Sexuality) on the above outcome measures, total scores on an evaluation questionnaire comprising Chance Health Locus of control (measuring subjects' perception of control over health outcomes), Sexual self-efficacy (measuring subjects' ability to deal with varied difficult sexual situations), and HIV/AIDS knowledge at pre- and post- test periods were analyzed using a repeated measures within subjects design.

**Table 7: Test of Within Subject Contrast**

Source	Measure	Type III Sum of Square	df	Mean Square	F	$\alpha$
INT.	CONTROL	66.150	1	66.150	20.12	.991*
	SSES	299.267	1	299.267	23.73	.997*
	HIV/AIDS	601.667	1	601.667	145.0	1.00*
<b>ERROR</b>	CONTROL	95.350	29	3.288		
	SSES	365.733	29	12.611		
	HIV/AIDS	120.333	29	4.145		

\* not significant

Table 7 shows the repeated measures results for the intervention. It indicates that the intervention did not have effect on any of the outcome measures. The results were computed using alpha of 0.05.

### **General Evaluation of Intervention**

#### **Positive perceptions of intervention**

To assess how helpful the intervention program was to participants, two separate questions were asked immediately after the program:

- i. Over all how helpful has the workshop been to you?
- ii. What personal difficulty has the workshop addressed?

**Table 8: Helpfulness of Intervention**

Response	Frequency	Per cent
Very Helpful	20	66.60
Helpful	8	26.64
Not Helpful	2	6.66
Total	30	100

From table 8, only 6.66 per cent of the participants indicated that the program was “not helpful” with the remaining 93.24 per cent saying the program was either “very helpful” or “helpful”. Responding to the second item “what personal difficulty has the program addressed” however, most of them said the program addressed their lack of openness in discussing issues surrounding sexuality and condom use.

### **Negative perceptions of program**

In each of the 9 sessions, participants reported that they needed more time (see appendix A for details). Besides the time limitation, participants complained about how some group members conducted themselves—by breaking the group’s ground rules. For example, some group members habitually left the group before time and others interrupted while their colleagues were making contributions.

### **Degree of Recommendation**

To explore the degree to which participants would recommend the program to other colleagues, they were asked to indicate their level of recommendation of the program to their friends.

**Table 9: Recommendation of Program**

Response	Frequency	Per cent
Strongly recommended	20	66.6
Recommended	10	33.4
Not recommended	-	-
Total	30	100.0

From table 9, all participants indicated their willingness to recommend the program to their colleagues with 66.6 per cent saying they would strongly recommend that their friends take part in the program when offered the opportunity.

### Other Findings

The results presented below do not form part of the researcher's main hypotheses and objectives however, the researcher deemed the findings of interest, informative of adolescent sexuality and worthy of further study.

### Confidence in saying no to sex

Not everybody who reported confidence in saying "no" to sex held on firmly to the decision not to have sex (see table 10).

**Table 10: Sexual activity and confidence in firmly saying no to sex.**

Confidence in saying no to sex

Have you had sex before?	Not confident	Confident	Total
Yes	27 (11.25%)	57 (23.75%)	84 (35%)
No	72 (30%)	84 (35%)	156 (65%)
Total	99 (41.25%)	141 (58.75%)	240 (100%)

Sexual activity was cross tabulated with confidence in firmly saying "no" to sex and the result is shown in table 15. The result indicates that out of the 84 respondents who were

sexually active, 57 of them reported confidence in saying no to sex. Only 27 of them reported that they were not confident in saying no to sex. For those who have not had sex about half were still not confident about saying no to sex.

**Table 11: Reasons cited for not using condoms by sexually active adolescents who did not use condoms**

Reason(s) for not using condom	Sex		Total
	Male	Female	
I didn't know how to use condoms	5	5	10
Condoms are not my responsibility	2	2	4
I didn't have a condom with me	10	3	13
I didn't think I was at risk for HIV/AIDS or STDs	3	1	4
It is too hard to stop and put one on	1		1
Condoms reduce pleasure	1		1
I was with someone I really cared about	2	7	9
Condoms are against my religious beliefs	3		3
I was too embarrassed	1	1	2
Total	28	19	47

Respondents' reasons for not using condoms are represented in table 11 above. The most cited reason by males was not having a condom at the time of having sex and that of females was that they were with "...someone they really cared about".

**Table 12: Planning of first sexual intercourse and condom use.**

Did you plan your first sexual intercourse?	Condom Use		
	Yes	No	Total
Yes	12(14.3)	6(7.1)	18(21.4)
No	25(29.8)	41(48.8)	66(78.6)
Total	37(44.0)	47(56.0)	84(100.0)

Table 12 shows the result of planning of first sexual intercourse and the use of condoms. From the table it is clear that out of the 18 respondents who planned for their first sexual intercourse, 12 used condoms. However, out of the 47 who did not use condoms, as many as 41 did not plan for their first sexual intercourse. A chi-square analysis indicates a significant relationship between planning of first sexual intercourse and condom use ( $\chi^2[df = 1] = 4.756, p < 0.05$ ).

### **Sexual Experience of Adolescents**

Sixty-five per cent of subjects in this study reported that they have not yet had sex, a situation, which reflects the national average as reported by the Ghana Demographic and Health Survey (GDHS, 1998). The study sought to find out subjects' intention to have sexual intercourse before they completed SSS. Responding to the question "Before you finish SSS, how likely are you to have sex?" 52.1% representing 125 of the respondents

said there was no chance at all. 9.6% (i.e., 25 of the respondents) said it was extremely likely. It is obvious that a lot of the respondents have the resolve to wait. Another facet of sexual behavior explored was number of sexual partners the respondents have had over the past year. In response, 68.3% said that they have not had any sexual partner over the past year, 18.8% have had one and 7.5 %, two. Once again from the statistics the greater number of adolescent students were sexually inactive.

A few subjects, all of them males reported engagement in risky behaviors, 5.4% of the respondents said they had sexual intercourse following alcohol consumption. The same number of respondents (5.4%) reported having had anal sex before.



## **CHAPTER FIVE**

### **DISCUSSION**

#### **Introduction**

This study aimed at identifying some of the psychological correlates of adolescent sexual behavior in Ghana. It also involved developing and piloting an HIV/AIDS intervention that takes into consideration theoretical models of behavior change.

#### **Adolescents' Perception of Risk of Acquiring HIV/AIDS (Hypotheses 1, 2 and 3)**

Hypotheses 1, 2 and 3 were not confirmed because none of the variables expected to be predictors of absolute risk was significant. Thus, neither internal locus of control, self-esteem, anxiety or HIV/AIDS knowledge guaranteed an accurate assessment of risk. It may be that in most instances, the feeling of invulnerability among adolescents is so strong that they do not perceive themselves as being in danger or at risk. In the case of comparative risk, most of them reported their peers to be at more risk than them. About 83.7 per cent believed that they were at a lesser risk than other students. Perceiving their peers to be at more risk than them could mean they perceived their peers to be more sexually active than they are. This phenomenon is explained by Suls, Wan, and Sanders (1988) to the effect that there is the perception that poor health behaviors are widely indulged in and that individuals think that they have better health behaviors than others. Citing smokers as example, they maintained that smokers tend to overestimate the numbers of other smokers. In essence, adolescents may have a tendency to believe they are not that bad as compared to their peers. One implication of this finding is that adolescents who practice unhealthy

behaviors may resist campaigns directed at behavior change because they think there are so many other people engaging in the behavior as well.

Another implication concerns preventive initiatives in adolescent sexuality. A strong relationship has been documented between perceived peer sexual activity and adolescents' sexual activity (Cvetkovich and Grote, 1981). However, there is generally a low correlation between actual and perceived peer sexual behavior. Most adolescents think their peers have more sex than them (Newcomer, Gilbert and Udry, 1984). Consequently, in order to change their own behavior, adolescents' perceptions of their peers' sexual behavior need to be altered so that they can change their own sexual behavior. Once they have accurate data telling them not everybody is having sex, it will help them assess their risk fairly and take the necessary precautions to protect themselves, for example, practicing abstinence.

The most frequently cited theoretical basis for adolescent perceived invulnerability is Elkind's (1967) concept of adolescent egocentrism, which stipulates that adolescents over differentiate their thoughts and feelings from those of others. This notion of uniqueness according to Elkind is so strong that it "becomes a conviction that he will not die, that death will happen to others but not him". This strong feeling of uniqueness might have led adolescents to perceive themselves as not being at risk of HIV/AIDS infection. They appeared to have an exaggerated sense of their ability to control their health, and therefore might have ignored potential health threat. They might have believed also that the threat did not exist or that they would be able to offset it somehow when it developed.

Again, they might have had little direct experience with health threats and so underestimated their own vulnerability. The person who has never had a serious illness may find it difficult to imagine how it would be like. (Taylor, 1991). HIV/AIDS until recently was heard but not seen. Consequently, not only were direct experiences with the HIV/AIDS threat distant but also there were no vicarious experiences. All this might have contributed to this perceived invulnerability or unrealistic optimism on the part of adolescents. According to Lee (1989), perceived invulnerability undermines legitimate worry about risk and that may reduce the likelihood that such people will engage in good health behavior or accept health-habit intervention.

Interventions can reduce these biased perceptions. Weinstein (1983) was able to reduce unrealistic optimism about health risk substantially by providing information about the relation of risk factors to particular health problems and about the standing of typical students on these risk factors. He found that when students became aware that other students had risk factors similar to their own, their unrealistically optimistic perceptions receded substantially.

The constant as shown in table 3 was significant. This could mean that irrespective of the role played by the independent variables in the determination of risk, there was already an in-built risk acknowledged by the respondents. Thus, generally with regards to HIV/AIDS, the respondents agreed that there was some form of risk confronting them. This finding may find credence in the assertion that adolescents actually understand the risks facing them but choose to ignore them. Perhaps they consider the risk to be acceptable, given the attendant benefits. Probably, they derive benefit from the risky act. For example, they enjoy

the thrill or social status that comes with it as members of a peer group (Quadrel, Fischhoff and Davis, 1993).

The relationship between anxiety and comparative risk was significant and positively related in that the more distressed the respondent felt about HIV/AIDS compared with their friends, the more they thought of their friends as being at risk. This could mean that the more adolescents are frightened by health campaigns, the more they distance themselves from the health problem in question. They may recoil into their selves and see the problem more in others since doing this helps them reduce their anxiety. Bauma and Siegel (1987) refer to this as “defensive denial”. As a result, instead of generating anxiety or apprehension, health campaigns particularly HIV/AIDS campaigns directed at adolescents should aim at engendering concern. This is because although the scare tactic approach has been shown to have immediate effects on attitudes (Leventhal & Keeshan, 1993), the research evidence on information-oriented programs, including those that involve scare tactics, is clear and consistent these effects do not last. Programs that have been studied do not improve behavior (Brooks- Gunn & Paikoff, 1993; Dusenbury & Falco, 1995).

#### **Confidence in Ability to Buy Condoms (Hypothesis 4)**

The hypothesis that adolescents with high perceived control will report more confidence in engaging in health-enhancing behavior such as buying condoms, than those with low perceived control, was confirmed. From table 5, all the factors thought to predict ability to buy condoms, which is a health-enhancing behavior were significant. Factors such as

gender, self-esteem, perceived control and HIV/AIDS knowledge all significantly predicted confidence in ability to buy condoms. More females reported lack of confidence in their ability to buy condoms. This is not at all surprising. According to Nabila, Fayorsey and Pappoe (1997), the socio-cultural environment in Ghana does not promote the spread of information on contraception. In fact, in Ghana, sex and contraception are a taboo topic particularly for girls. Girls are socialized to accept the domineering role of men even in sexual relationships. They are seen as “spoilt” if they initiate any move to negotiate condom use. Consequently, it would have been unusual for adolescent females to express confidence to purchase condoms. When people generally have control or believe that they have control over their health circumstances, they are able to act in ways that prevent them from endangering their lives. Perceived control and HIV/AIDS knowledge were positively related to the ability to buy condoms. Thus, the more knowledgeable the subjects were with regards to HIV/AIDS, the more they reported confidence in their ability to buy condoms. From the theories on health communication and behavior change, as people become more knowledgeable about certain health problems and prevention strategies, they are more likely to practice those preventive health behaviors. It must be emphasized here that knowledge or information presented anyhow is not going to be effective. Kirby (1999) contended that the information given must be clear and unambiguous. It must also be colorful and vivid rather than steeped in statistics. In addition, McGuire (1964) stresses that the source of the knowledge must be credible and trustworthy. Again, the more perceived control the respondents in this study reported they had, the more they reported confidence in their ability to buy condoms. This was an intention which when put into practice would have helped them use condoms to protect themselves against HIV/AIDS

and teenage pregnancy. The health belief model emphasizes perceptions of vulnerability and beliefs about the importance of particular health behaviors. But undertaking many health behaviors also requires a sense of personal control- a belief that one can actually perform the health behavior (Bandura, 1986). Bandura reasoned that an important determinant of the practice of health behaviors is a sense of self-efficacy: the belief that one is able to control one's practice of a particular health behavior. Thus, from the present study, when the respondents felt that they were in control they reported confidence in their ability to buy condoms. It is therefore important for intervention strategies to include training in assertiveness in order to enhance perception of control.

#### **Self-esteem and Condom Use at First Sexual Intercourse (Hypothesis 5)**

The hypothesis that reported condom use will be higher among adolescents with high self-esteem than those with low self-esteem was not confirmed. The reverse was however the case. Adolescents who reported high self-esteem did not use condoms at their first sexual intercourse (see table 6). The relationship between self-esteem and ability to buy condoms just looked at intentions, but people do not always make good on their intentions. In other words, the fact that they have reported high confidence in their ability to buy condoms does not mean they would buy them, let alone use the condoms. The negative relationship between self-esteem and ability to buy condoms means that the more the respondents reported high self-esteem, the less confident they were in their ability to buy condoms. This is quite intriguing because one would expect an adolescent with high self-esteem to buy condoms confidently. The results could mean that adolescents with high self-esteem are

more realistic at assessing themselves because their lack of confidence in buying condoms does not impinge on their self-worth.

It could also be that respondents have an exaggerated sense of self-esteem and a false belief in their ability to act out that behavior. However, when confronted with the question of actually indicating their level of confidence to carry out such behavior, they found they did not feel so confident after all.

Consequently, the fifth hypothesis looked at self-esteem and actual condom use at first sexual intercourse. The finding regarding this is that adolescents who reported high self-esteem did not use condoms at their first sexual intercourse compared to their low self-esteem counterparts (see table 6). Adolescents are known to be impulsive. Thus, they can take decisions on the spur of the moment believing themselves to be invincible and therefore not susceptible to any damaging consequences. In a study by Loewenstein and Furstenberg (1991), 65 per cent of teenagers reported that their first sexual experience was unplanned; 21 per cent stated that although not planned, it was not unexpected; only 15 per cent reported that their first sexual experience was planned. This may explain why those with high self-esteem failed to use condoms. Again, those with high self-esteem may have gone ahead and had sex without using condoms because they bravely may not have been afraid of the consequences of their decision. High self-esteem does not automatically ensure participation in health-enhancing behaviors, for example, using condoms. Those with low self-esteem on the other hand, would use condoms because they were less brave and may have been afraid of the consequences. Intervention programs for adolescents with high self-esteem should therefore aim at influencing them to see the need for using condoms. This can be achieved by exposing them to negative effects of not using condoms.

Thus providing them with accurate knowledge. This suggestion is being made notwithstanding the fact that 20 years of research has informed the field of sexual education that knowledge level is only weakly related to behavior (Whitely and Schofield, 1986) and that programs that focus on knowledge acquisition do increase students knowledge, but do not significantly change sexual or contraceptive behavior. Nevertheless, this does not mean that ignorance is the answer. Knowledge does help build the foundation for behavioral change.

Some adolescents avoid contraceptive use because they fear it will spoil the spontaneity of the relationship, or because they think it would indicate that they expected to have intercourse.

#### **Intervention Outcomes (Hypotheses 6)**

Pre- and post evaluation of the intervention on the following outcome measures: perception of control, HIV/AIDS knowledge and sexual self-efficacy indicated that the intervention did not impact significantly on these measures. Statistically the intervention did not have any significance. This may probably be due to the fact that there was limited time for the intervention to have registered any significant changes in the pre-and –post measures. Another reason is that the intervention measures may have not been culturally valid in spite of the attempt at modifying them to suit Ghana's cultural setting. With regards to HIV/AIDS however, it could have been that the knowledge was already very high, thus leaving no room for change. Nevertheless, the enthusiasm, with which the students enrolled to be part of the intervention workshop, was remarkable. It showed a lack of an appropriate forum to talk about sex. It became apparent that the students were ready to talk about some

personal difficulties in relation to their sexual behavior in a non-threatening environment. Though the group sought very hard to provide such an environment, the novelty of it to most of the students disabled them from giving information in a free, uninhibited manner. This was clear from the number of students who consulted the researcher on one-on-one basis when given the opportunity to do so.

In a more detailed evaluation of the workshop, content analyses were made covering the following areas: presentation, content and time per each topic (Appendix 1 shows the various percentage responses of levels of satisfaction). With the exception of time, which the statistics overwhelmingly showed the participants needed more of it, they were very much satisfied with both the presentation style and the content of the workshop.

The paucity of time is quite understandable; the workshop took place within some few weeks to the end of term examination. Hence, the students were constrained with time. It explains why some had to leave for home before the daily schedule was over.

#### **Other Findings:**

##### **Sexual activity and confidence in firmly saying no to sex.**

From table 10 we realize that not everybody who reported confidence in saying “no” to sex held on firmly to the decision not to have sex. Out of the 84 respondents who reported being sexually active, 57 of them reported confidence in saying “no” to sex. These 57 adolescents might have held on to their decision not to have sex for sometime but may have

given it up in the face of peer pressure or as a result of their own desire to experience the pleasure of sex. This inconsistency, that is saying one thing and doing the other, occurs because sex is not a domain of decision making renowned for its rationality. Sex is known for inducing what economists call “time inconsistent” patterns of behavior. Time inconsistency occurs when a person fails to adhere to a plan for future behavior. Teenagers and others often plan to “just say no”, but end up saying yes. It follows from this that a “just say no” strategy for preventing pregnancy may backfire, leaving the teenager unprepared to use contraceptives if her or his resolve not to have sex should break down. It is also possible that adolescents may not want to say no even though they can. In other words, they want to have sex that is why they are having it. It is therefore important that interventions do not emphasize mere self-report of confidence to carry out healthy behavioral lifestyles but rather should stress training in behavioral skills, e.g., how to safely exit from sexually compromising situations and how to negotiate safer sex

It is alarming to realize that nearly half of the 156 who reported abstinence said they were not confident about their ability to say no to sex. Something definitely ought to be done about improving the skills of this group so that they do not succumb to intense pressure to have sex.

It is evident from the above that sexual decisions cannot always be rational. If this is true about sex, then one wonders about the efficacy of the “Love Life, Stop AIDS” message, which is the campaign, message for HIV/AIDS prevention in Ghana. The theoretical basis for this message may be fraught with ambiguity. Thus, going by the argument that sexual

behavior is an aspect of behavior that does not easily submit to rational decision making, it becomes apparent that people are not going to stop AIDS simply because they love life. If people are going to love life, then they must be taught in concrete terms how to love life. In other words, they must be taught how to make good on their intention to love life through practical skills training. It is just not enough telling the youth to love life whilst their own biological disposition and the social milieu they find themselves in, which has been so much “sexualized”, tell them that loving life involves the pleasure of indulging in premature and unprotected sex.

#### **Planning of Sexual Intercourse and Condom Use**

The survey data show that out of the 84 sexually active adolescents only 18 reported planning for their first sexual intercourse, 66 did not plan for it. The most cited reason for the non-use of condoms was non-availability of condoms followed by inability to use condoms. Chilman (1983) explained this phenomenon by asserting that most teens do not consciously plan to become sexually active, and they often do not foresee their first sexual experience. As such, it frequently is not experienced as a decision but rather something that “happened”. It is also possible that sexual behavior whether by teenagers or adults, does not lend itself to interpretation as a rational choice. Like food, drugs, alcohol and cigarettes, sex is commonly associated with impulsivity. When faced with the prospect of imminent sex, or in the heat of passion, people often behave in ways they had not planned and which they later regret (Loewenstein & Furstenberg, 1991).

Social scientists often distinguish between rational, dispassionate behavior when people calculate costs and benefits so as to maximize their own selfish interest and “passionate” (Hirschman, 1977), “hot” (Abelson, 1963), or emotional behavior when people seem to show a striking indifference to their own long-term self-interest. Clearly, sexuality is a domain of behavior in which passionate behavior is common. Furstenberg (1976) also noted this impulsivity of sexual behavior among adolescents. In his view, because many young people like to think of sex as emotional and spontaneous, they feel it is not something that should be planned for. Therefore, interventions that target adolescents who are not sexually active must teach them everything about sex with much emphasis on abstinence alternatives for prevention. Besides, a condom policy that allows adolescents to be taught condom use in schools as well as permit them to carry condoms with them all the time must be introduced so that they can protect themselves just in case their resolve to wait breaks down. This proposal is strongly criticized by proponents of abstinence-only based programs on the account that it promotes premarital sexual behavior. In her article “The Failure of Sex Education”, Dafoe Whitehead (1994) provided evidence to show that the body of research on sex education programs is not as rich and robust as we might wish. She argued that while comprehensive sex education places its faith in the power of knowledge, the evidence overwhelmingly suggests that sexual knowledge is weakly related to teenage sexual behavior. She admitted that students who take sex education do know more about such matters as menstruation, intercourse, contraception, pregnancy, and sexually transmitted diseases than students who do not. However, more accurate knowledge to her does not have measurable impact on sexual behavior. As it is typically thought, sex education has little effect on teenagers’ decision to engage in or postpone sex.

In her opinion, although teenagers who learn about contraception may be more likely to use it, their contraceptive practices tend to be irregular and therefore ultimately unreliable.

Exponents of abstinence-only based programs are of the view that what sex educators are offering now is training in sexual survival. Once the kids have been equipped with refusal skills, a bottle of body oil, and some condoms, “reality-based” or advocates of comprehensive sexuality education send them into the world to fend for themselves. Perhaps, in their view, that is the best protection that today’s school and health leaders are able to offer from a harsh and predacious sexual environment. Nevertheless, abstinence-only based advocates say this is not realism but a retreat from high moral values. However, the literature is replete with findings that show that sex education of which disclosure about condoms is an integral part, does not lead to experimentation with early sex. According to Sanderson and Wilson (1991), sex education educates rather than propagandize children about sexuality. The weight of the evidence indicates that abstinence-only curriculum does not delay the onset of intercourse (Kirby and Coyle, 1997). One review of the WHO Global Program on AIDS focused on the behavioral impact of sex education programs as measured by rates of teenage pregnancy, abortion, birth, STDs, and self-reported sexual activity. It showed that sex education programs did not lead to earlier or increased sexual activity in young people, and that such programs might delay initiation of sexual intercourse, decrease sexual activity, and increase the adoption of safer sexual practices in sexually active young people.

For all their antipathy, abstinence-only advocates and comprehensive sexuality education proponents share a common goal: the prevention of unintended pregnancies, HIV/AIDS

and other STDs. A number of comprehensive sex education curricula examined in rigorous studies have achieved modest delays in sexual intercourse, reductions in the number of partners, and increases in contraceptive use. A national review in the US outlined a variety of elements of effective programs:

- tailoring to the age and experience of the audience;
- focus on risky sexual behavior;
- sound theoretical foundation;
- provision of basic facts about avoiding risks of unprotected sex;
- acknowledgement of social pressures to have sex; and
- practice in communication, negotiation and refusal skills (Kirby, 1997).

The guardians of quality education, including teachers, parents, school boards, and legislators have a duty to consider more than the leanings of one advocacy group or another. Credible, objective evidence about the ability of specific programs to achieve their goals is essential. Decision makers need to separate value questions from questions of effectiveness in sex education, and find the common ground.

### **Gender and Condom Use**

Many women unfortunately think that being in love justifies making risky decisions. This is borne out by the fact that when female respondents were asked to give reasons for not using condoms many (about 77%) cited "I was with someone I really cared about". This calls for, serious education that emphasizes the fact that sexual intercourse is not the same as love. Many Ghanaian teenage girls have been taken advantage of because they have

been socialized and made to erroneously believe or think that the only way one can show emotional attachment to others especially males, for them to really know that you care, is to provide that person sex. This attitude has dire implications for prevention, particularly, for teenage girls since they are left with no option than to respond to the whims of their partners. This thinking has persisted due to how society has been structured. Patriarchy, a set of social relations in which women systematically operate as subordinates and men are placed in a dominant position, may explain the persistence of this thinking. This unequal power relation robs women of the power to negotiate safe sex with their partners. Patriarchy is nurtured and sustained through institutions such as the family, religion and the media. Through socialization in families, girl-children are made to accept the myth that men are superior to them. The mass media also help the perpetuation of this notion by the publication of gender stereotypes. Against this background, it is very crucial that intervention strategies serve as a means of demystifying the myths associated with gender relations. In other words, the thrust of interventions strategies must be the empowerment of girl-children for them to know their rights so that they can be sensitive to all the subtle ways by which they are oppressed or taken advantage of.

### **HIV/AIDS Knowledge**

The findings suggest that with respect to disease transmission, 93.9 per cent of the respondents correctly indicated that sexual intercourse is one mode of contracting HIV/AIDS. HIV/AIDS knowledge base was high comparing favorably with studies by Nabila and Faryorsey (1996) and Apt and Blavo (1997). Many studies however, report a

gap between this high level of awareness and corresponding behavioral change. According to Apt and Blavo (1997), avoidance of infection is the mainstay of the fight against the spread of AIDS. Evaluating awareness and attitude changes toward infection avoidance, they noticed that though awareness had increased in Ghana far above the previous year (1990), there was not a corresponding positive change in attitudes towards risk factors of AIDS. Indeed, as evidenced by this study a high level of awareness has already been created.

If such is the case, why has the youth not been able to translate this high knowledge base into behavioral outcomes? Most of the behavior change theories may explain this situation. For instance, the proponents of the theory of Planned Behavior (Ajzen, 1985; Ajzen & Madden, 1986) argue that in addition to knowing a person's attitude, subjective norms, and behavioral intentions with respect to a given behavior (e.g., condom use), one needs to know his or her perceived behavioral control over the action (Bandura, 1986). They maintain that people need not only hold behavioral intentions toward a particular attitude object, but should also feel that they are capable of performing the action being contemplated and that the action undertaken will have the intended effect. Thus, feelings of perceived control and self-efficacy also appear to be important in demonstrating attitude-behavior change consistency even where there is a clear behavioral intention to act on the attitude. In the context of the current study, subjects cited inability to use condoms as a reason why they did not use condoms during their first sexual encounter. Clearly, this shows that they do not have control over the desired behavior (condom use) though the intention to use condoms might have been there. Something definitely must be wrong with

the “use condoms or abstain and just say no” campaign being waged by our health authorities because it creates the needed awareness and attitudinal change without necessarily yielding behavioral change. As a result, not only must the youth be entreated to abstain, but also they must be taught how to abstain. The same holds for condom use.

Findings from the study also bear on the practical problem of how to communicate risk information in the context of preventive interventions. It is critical that adolescents develop a personalized sense of threat that is linked to their own actions. However, since personal coping responses such as the tendency to deny threat or feel invincible, may interfere with the process, strategies designed to reduce the resulting biases must be developed. For example, this might be accomplished by providing adolescents with concrete action plans or by a skills training component aimed at increasing perceived self-efficacy. From table 5, we realize that perceived control strongly predicts engagement in health enhancing behavior like buying condoms. What this means is that when the youth are taken through the practical demonstration of dealing with the embarrassment that comes with procuring condoms and how to use them, their self-efficacy and control over their sexual behavior would be enhanced. In this respect, they would be more likely to buy and use condoms to protect themselves.

#### **Sexual experience of adolescents**

Comments and studies on adolescent sexual behavior have sought to create the impression that many more adolescents are becoming sexually active. This impression seems to be an over magnification of the **problem** in the light of current data. The findings from this study

indicate that majority of the respondents (65%) have not had sex before. This finding is supported by the Ghana Demographic and Health Survey (GDHS, 1998). According to this survey, 62% of women in the 15-19 age group and 80.7% of men of the same age group have never had sex. Also, this survey recorded a median age at first sexual intercourse of 16 years for both male and female adolescents. It is interesting to note that the median age at first sexual intercourse for women has not changed much over the past twenty years according to the 1998 GDHS. It ranges from 17.5 among women of age 40 and over to 18 years for women of age 25-29. For men on the other hand, it is even later. The median age at first sexual intercourse for men of age 25-59 is 19.4, almost two years later than for women. All that these statistics are telling us is that a lot more of our adolescents are making the effort to wait.

The 35% of adolescents who are sexually active get all the attention. All initiatives aimed at combating teenage pregnancy, STDs including HIV/AIDS are focused on the 35% (present survey data) or the 38% (GDHS, 1998) who are sexually active to the neglect of the majority who have decided to abstain. As this neglect continues, those who have decided to wait may gradually drift to join those who are sexually active thereby making more adolescents become susceptible to STDs and HIV/AIDS infection.

Thus, interventions in the HIV/AIDS preventive effort seem not to be informed by the reality on the ground. There is too much concentration on the sexually active few to the neglect of the majority who are abstaining or waiting. This has led to a situation where the youth overestimate the number of their peers who are sexually active. The impression

likely to be imprinted on their mind is that almost everybody is having sex and that no matter what they do to abstain, their resolve is going to break anyway. There is therefore the urgent need to invest more in identifying adolescents who are abstaining so that they can be helped to sustain that resolve. This initiative, demands serious effort in the area of attitudinal change to make abstinence become the “in” thing among the youth. Innovative programs that are rewarding must be put in place. We learn from the theory of reinforcement in the area of learning that when a behavior is rewarded or reinforced it is more likely to occur the next time and under the same circumstances (Skinner, 1938). Consequently, there must be a shift in emphasis as far as intervention is concerned, from those who are already sexually active to those who are not and would like to continue to abstain

This finding brings the importance of girl-child education to the fore. The study used an in-school population and the fact that majority of them are abstaining may be indicative that when girls stay a little longer in school, they are able to postpone initiation of sex. The Ghana Demographic and Health Survey (1998) reported that women with secondary school and higher education enter into sexual relations about a year later than women with no education. In this regard therefore, all effort must be made by government to encourage the enrollment and retention of girl-children in school through special programs to subsidize female education. Fertility has been found to be low with women who have higher education. Thus, besides preventing the youth from contracting STDs including HIV/AIDS, there is much to gain from female education. This is because education is strongly related

to the age at which a Ghanaian girl bears her first child. Among those with no education, 33 per cent begin childbearing during their teenage years, while among those with secondary/higher education, only 6 per cent becomes mothers as teens (GDHS, 1993).

### **Summary and Recommendation**

The study concerned itself with identifying some psychological correlates of adolescent sexual behavior and proposing an HIV/AIDS intervention to help adolescents deal with their sexuality in a more responsible manner. The study found that majority of adolescents are abstaining from sex and that those who are sexually active and are not using condoms attribute it to their inability to buy and use condoms. Again, the more health campaigns generate anxiety or apprehension in adolescents, the more they deny the reality of the health problem. Instead, they see their friends to be at more risk so they can minimize their anxiety. The intervention that was piloted was well received by the subjects who expressed their desire and readiness to participate in such interventions so that they can deal with their anxieties about sex.

In the light of the above findings, the following recommendations are being made that:

- an aggressive sexuality and HIV/AIDS campaign that emphasizes equipping the youth with practical training skills in such areas as condom use, decision making and assertiveness training must be put in place. This program would help the youth recognize the merits of abstinence, develop the skills necessary to resist peer

pressure and inappropriate sexual advances, and instill the confidence to negotiate the use of contraception with their partner.

- there should be a shift in emphasis from those who are already sexual to those who are not and would like to continue to abstain.
- serious education that emphasizes the fact that sexual intercourse is not the same as love must be carried out.
- more girls must be encouraged to go and stay in school up to the tertiary level since the longer girls stay in school, the more they delay their initiation of sex. If a woman delays her marriage even for few years, she may gain both personal and social advantages. She may be able to pursue her education further, obtaining skills that increase her access to employment or her family's access to health care and other community resources. A woman whose marriage is postponed until after her adolescent years is also likely to have a greater role in deciding when and whom she will marry, and she may have more influence over what happens within her marriage and family as well.
- there should be strong advocacy on changing attitudes of adults who are most resistant to the whole idea of adolescents using condoms. However, strong religious or political opposition may greet the introduction of such programs. This is because of fear that they will encourage sexual activity among the young. Yet studies indicate that sexuality education, of which familiarity with condoms is an integral part, does not encourage young people to engage in sex; most studies show that education about reproductive and sexual health is associated with the postponement of the first sexual experience and with the use of contraceptive among those who

are sexually active. Yet, the idea of condom liberalization is laden with much passion and sensitivities. Nevertheless, this must not deter government from exploring the opportunity to implement such a policy to protect the lives of the youth for the development of the nation

In conclusion, it is clearly evident that an aggressive sexuality and HIV/AIDS campaign that emphasizes equipping the youth with practical training skills in such areas as condom use, decision making and assertiveness training must be put in place. There must also be a shift in emphasis from those who are already sexual to those who are not and would like to continue to abstain.

Condoms must also be made easily available to the youth. This, I reckon will require a substantial shift in public support for making condoms easier and more desirable for teens to use if and when they initiate sexual intercourse.

### **Limitation**

There are some major limitations of this study:

- It involved a small number of adolescents hence the modest findings, though true for this sample, may not be stable and generalizable to other samples.
- The study is also subject to the biases and distortions of most studies based on self-report information; though, the assumption that adolescents are reliable reporters of their own behavior has received some support from studies on oral contraceptives (Litt, 1985).



- With regards to the intervention, the timing of the study coincided with the examination period of participants and this did not give the researcher the opportunity to do follow up.
- Another problem encountered was the subjects' attitudes to the intervention. The timing was not convenient for them because they were getting ready for their end of term examination. Examination stress, therefore, may have affected their responses to the intervention inventories.
- Culturally also, the instruments for the intervention were not researched for their validity in the Ghanaian context. This may have contributed to rendering the statistical analysis of the intervention data non significant.

#### **Recommendations for further studies**

- Currently, many intervention programs are being implemented in the general of adolescent sexuality and especially HIV/AIDS. What is urgently needed is the evaluation of these programs. Evaluation research would enable the identification of the effectiveness of these programs so that limited resources could be utilized to support the most effective. In addition, it would help to deal with the problem of duplication since materials from interventions with demonstrated effectiveness could be made available to practitioners around the country.
- It is very important that intervention programs take into consideration what the already existing literature indicates is effective.

- Intervention programs must now focus on preadolescents. In addition to being a time when students are undergoing changes that can interfere with learning skills, the preadolescent years are critical in the development of behavioral patterns and choices, for example, related to smoking, drinking, drug use and sexual activity, that profoundly affect children's future health and well being.

## APPENDIX

### Content Analysis of Intervention: Presentation, Content and Time.

Table 14.0: Presentation

Topic	Very Satisfactory	Satisfactory	Not at all Satisfactory	Total (N)
Abstinence	22	3	5	30
Sexuality and Reproductive Biology	21	7	2	30
Resisting Peer Pressure	21	9	0	30
Ethics and Sexuality	21	8	1	30
Protecting Yourself	16	9	5	30
Condom Use and Negotiation	21	6	3	30
HIV/AIDS Education	20	8	2	30
Drugs and Sexuality	21	9	1	30
Assertiveness Training	21	8	1	30

Table 14.1: Content

Topic	Very Satisfactory	Satisfactory	Not at all Satisfactory	Total (N)
Abstinence	20	6	4	30
Sexuality and Reproductive Biology	18	8	4	30
Resisting Peer Pressure	18	10	2	30
Ethics and Sexuality	20	8	2	30
Protecting Yourself	21	5	4	30
Condom Use and Negotiation	20	6	4	30
HIV/AIDS Education	23	6	1	30
Drugs and Sexuality	20	9	1	30
Assertiveness Training	22	6	2	30

**Table 14.2: Time**

<b>Topic</b>	<b>Alright</b>	<b>Undecided</b>	<b>Needed more time</b>	<b>Total (N)</b>
<b>Sexuality and Reproductive Biology</b>	5	6	19	30
<b>Resisting Peer Pressure</b>	1	5	24	30
<b>Ethics and Sexuality</b>	10	4	16	30
<b>Protecting Yourself</b>	10	4	16	30
<b>Condom Use and Negotiation</b>	9	7	14	30
<b>HIV/AIDS Education</b>	9	5	16	30
<b>Drugs and Sexuality</b>	11	4	15	30
<b>Assertiveness Training</b>	10	4	16	30
<b>Assertiveness Training</b>	11	4	15	30

## **SELECTED HANDOUTS FOR INTERVENTION**

### **Drugs and sex**

#### **Justification:**

Drugs and alcohol impair judgment. Alcohol and substance use influence high risk sexual behavior by distorting cognitive processes related risk perception and assessment. Learning about the linkage between drugs and sex therefore, is crucial in addressing adolescent sexual behavior.

#### **Objectives:**

By the end of the session, participants will be able to:

1. know about the psychological effect of alcohol
2. identify some biological and social costs of substances like alcohol, nicotine (cigarette), marijuana, cocaine etc.

#### **Methodology:**

**Mini-lecture on drugs**, and how they affect our health. First, participants will discuss what they know about the health implication of drugs and substance use.

Discussion of personal experiences with alcohol or other substances.

### **Sexuality and Reproductive Biology**

#### **Justification:**

When we think about sexuality, we might just think about our bodies. We might just think about our sex organs. But our sexuality has as much to do with how we think and feel as it does with how we behave. Sexuality is a basic part of our physical, emotional, mental, and spiritual lives. Young people need opportunities to openly discuss sexuality and its meaning as well as knowing their sexual bodies and how pregnancy happens.

#### **Objectives:**

By the end the session, participants will be able to:

1. discuss sexuality openly
2. know the functions of their sex organs
3. describe how pregnancy occurs

#### **Methodology:**

Mini-lecture and discussions

## **Resisting Peer Pressure**

### **Justification:**

Peer pressure has been identified as one of the many factors that influences adolescents to indulge in risky behaviors. It is however, important for the youth to be educated on the dynamics of peer pressure. Thus, when one gives in to negative influences from friends, the consequences can be very detrimental to the growth of the adolescent. On the other hand, it becomes developmentally appropriate socialization tool when one succumbs to positive pressure from friends to enhance one's self-image.

### **Objectives:**

By the end of the session participants will be able to:

1. know four important facts about sex that will help them deal with peer pressure
2. avoid succumbing to peer pressure

### **Methodology:**

Mini-lecture, discussion and role-plays

## **Ethics and Sexuality**

### **Justification:**

Sexuality includes physical, ethical, spiritual, and emotional dimension. Defining ethics as the set of principles individuals use to determine what behavior is right and good in their relationship with others, today's youth need to be exposed to an ethical framework that will help them to make more responsible decisions regarding sexual behavior.

### **Objectives:**

By the completion of this session, participants will be able to:

1. become more sensitive to the feelings and needs of others
2. identify the proper cause of action to take
3. come out with values motivating their behavior and barriers that might keep them from actually doing what they feel they should do
4. specify what they would do to overcome any obstacles and competing values that prevent them from performing what they think is the right thing

## **Methodology (activities)**

### **Discussions and Role-play**

#### **1. Moral Sensitivity**

**Participants will define different sexual issues e.g.: sexual exploitation, highlighting both responsible and irresponsible sexuality.**

**Participants will also discuss the statement “Girls give sex in order to get love, and boys give love in order to get love”**

**Participants will deliberate on how this statement fits in with using someone or treating someone as sexual object. Teenager’s responses can be challenged, either by asking them how people in such situations might feel, or by having them take the role of the person being mistreated.**

**Participants will role-play a “one night stand” scenario and they will be asked the following questions:**

**How do these persons feel?**

**What are the possible meanings of this act to each of them?**

**Do the boy and girl have different interpretations of the sexual act?**

**How would the girl feel if she knew the boy’s intention and vice versa**

**How would you feel if one of them was your friend, girlfriend/boyfriend, sister/brother?**

#### **2. Moral judgment:**

**What should you do if you are being exploited?**

**What do you say to a partner who wants sex?**

**What should you do if you are the one who wants sex?**

**Participants will discuss the rationale behind their choices (i.e., principle at play in making an ethical decision. Leading questions include:**

**Why do you think that is the best thing to do?**

**What ethical standards did you base your decision on?**

### 3. Moral motivation

The facilitator will ask participants what they would actually do and the values that would be motivating their behavior.

Participants will explore the barriers that might keep them from what they intend to do. Some leading questions might be helpful:

What other values (for e.g. , acceptance, fun, fulfilling sexual drives, popularity, self-interest) might be competing with the one you used to make your decision?

Could thinking too much about the consequences deter you?

How might other people, much as peers respond to your decisions?

If you were trying to help a friend, how might he/she respond?

How would you feel if you did not do what you thought was best ?

How would you feel if you did?

### 4. Moral character

Participants will discuss what they would do to overcome obstacles and competing values that might prevent them from performing what they think is the right decision. Questions that will be discussed include:

What do you think would make it difficult to act on your decisions ?

What might distract or frustrate you ?

What characteristics have you demonstrated in the past that would help you follow through on the decision?

#### Role –play “ Good Angel, Bad Angel” Activity

A participant sits in a chair with two others standing behind him or her. One plays the good angel, who wants to help the sitting participant follow through on what he or she thinks should be done. The second plays the bad angel and gives reasons why not to do it.

Participants are then asked what the good angel can say, the facilitator emphasizing the fact that it is helpful to have “good angel” statements ready when following through on one’s beliefs.

## **RESISTING PEER PRESSURE (notes)**

Having close friends that you can hang out with and talk to about what is going on in your life is important, especially as you grow and mature independent of your parents. But what if your friends pressure you to do something you're not comfortable taking on? When you feel like you have to look or act a certain way because of your friends' expectations – that's is called peer pressure. If you have done things or made comments in the past that you didn't really believe, just to fit in with others, then you know what it feels like. It is hard to ignore peer pressure because people want to be liked and to make their friends happy.

It is important, however, to make your own decisions about your life, and that includes making responsible choices about sex. Nowadays, it may seem like it's hard to know what to think about sex. Movies, television programs, commercials, magazine articles, and photographs are often filled with suggestive material. This creates the impression that everyone is doing it; and that you have to have sex to become normal. Actually, it's quite normal not to have sex, or to wait until you are older. The decision whether or not to have sex is personal and private and can only be made by you.

### **THE TRUTH ABOUT SEX**

What's the best way to make that decision? Here are four important facts about sex that will help you deal with peer pressure so that you can make a decision that is right for you.

### **NOT EVERYBODY IS HAVING SEX: GUESS WHAT?**

There is no law that says you have to have sex. A lot of young people think that everybody else is having sex. But it turns out that a lot of teens wait until they are older to make that decision. And, according to a study done for seventeen magazines and the Ms. Foundation for Women in 1996 in the US, many people who had sex when they were young now regret that decision. The survey of 1,000 teens showed that 8 out of 10 teen boys surveyed wished they had waited until they were older to have sex.

### **SEX CAN BE DANGEROUS:**

You can get sexually transmitted disease (STD) from having sex. The most common STDs are Chlamydia; Gonorrhea; Herpes; Syphilis; Human Papillomav Virus (HPV); and Human Immuno deficiency Virus (HIV), the virus that causes AIDS. Some of these diseases can be cured, others cannot.

## **SEX CAN LEAD TO PREGNANCY**

**One of the quickest ways to put an end to your social life and derail your plans for tertiary education is to become pregnant. Each year.**

## **SEX DOES NOT EQUAL LOVE**

**Having sex with some one is not proof that you love them, or that they love you. There are many ways to show love and affection without having sex: kissing, hugging, holding hands, speaking kind words, and giving gifts. Pressuring someone to have sex is never a demonstration of love.**

## **DEALING WITH THE PRESSURE**

**Even armed with these facts, it may be hard to resist peer pressure to have sex. This is especially true if your boyfriend or girlfriend is the one pressuring you to have sex. Here is how to avoid succumbing to the pressure:**

### **STOP AND THINK BEFORE YOU ACT**

**If the idea of having sex makes you uncomfortable, ask your self why. You may not think you are ready, you may be afraid of catching an std, you may be afraid of getting pregnant or impregnating someone, or you may just be scared of what the experience will be like. All of these are valid reasons not to have sex. The bottom line is – if you have any reservations, you shouldn't have sex.**

### **THINK ABOUT YOURSELF**

**This may be hard to do since you may think that being sexually active will make you more popular, or help you feel better about yourself. But you are the one who has to feel comfortable with your decisions, not your friends.**

### **SEPARATE YOURSELF FROM THE PRESSURE**

**Physically remove yourself from the person or people who are pressuring you. If you are at a party, go to another room, or walk outside for some fresh air. Even if it is a situation where you are just talking to friends and the subject of sex comes up, you have every right to change the subject or excuse yourself.**

### **MAKE YOUR POSITION CLEAR**

**If you aren't interested in having sex, say so. A simple no will do. You don't have to explain your decisions to someone who is pressuring you. Stay firm, even if you sense that others would be happier if you did what they wanted. Don't give in to the pressure.**

## **PRACTICE YOUR RESPONSES**

Your partner may use “lines” that are intended to get you to have sex before you are ready. Examples include: “if you really love me, you will have sex with me”, and everyone else is doing it”. Think about how you would respond to these statements. Then, practice what you would say by having an imaginary conversation with yourself, or by acting out the scene with a friend.

## **AVOID DRUGS AND ALCOHOL**

Drugs and alcohol impair your judgment. It is important to have a clear head when dealing with peer pressure.

Adapted from “Peer Pressure can make decisions about sex tough. Here is how to turn down the heat from friends” SCHOLASTIC CHOICES: New York February 1999 by Susan Finn.

**SURVEY QUESTIONNAIRE**

This survey is seeking your opinion on adolescent sexual behaviour and HIV/AIDS. Please be as honest as possible and be assured that no one would know of how you have responded to these survey items. In this regard please do not write your name.

**BACKGROUND INFORMATION**

- 101. Please indicate your exact age \_\_\_\_\_
- 102. Sex? 1 = Male 2 = Female
- 103. Which ethnic group do you belong to? \_\_\_\_\_
- 104. Where do you stay (during vacations) \_\_\_\_\_
- 105. Educational background of parents:
  - 105a. Father \_\_\_\_\_
  - 105b. Mother \_\_\_\_\_
- 106. Parents Occupation:
  - 106a. Father \_\_\_\_\_
  - 106b. Mother \_\_\_\_\_
- 107. Religion
  - 1= Orthodox Christian (Catholic, Presby, Methodist etc.)
  - 2=Charismatic / Pentecostal Christian 3=Moslem
  - 4=Traditional Religion 5=Others specify: \_\_\_\_\_

**Self-Efficacy**

**Please tick (✓) your confidence level in doing any of the following:**

		Not at all confident	Somewhat Confident	Totally confident	Don't know
108.	Buying a condom?				
109.	Stick with your decision not to have sexual intercourse?				
110.	Firmly say "no" to having sex and explain your reasons if your boyfriend / girlfriend pushes you to have sex?				

**Self-esteem**

*Please indicate whether you agree or disagree with each of the following statements*

*For each of the statements below, tick (✓) your level of agreement*

		Agree very much	Agree	Don't know	Disagree very much
111.	At times I think I am no good at all				
112.	I take a positive view of myself				
113.	All in all, I am inclined to feel that I am a failure				
114.	I wish I could have more respect for myself				
115.	I am able to do things as well as most other people				
116.	I feel that I am a person of worth at least on equal plane with others				
117.	On the whole I am satisfied with myself				
118.	I feel I do not have much to be proud of				
119.	I feel that I have a number of good qualities				
120.	I certainly feel useless at times				
121.					

**Health internal Locus of Control**

*Indicate your level of agreement to each of these statements:*

1. Strongly Disagree      2. Moderately Disagree      3. Slightly Disagree  
 4. Slightly Agree      5. Moderately Agree      6. Strongly Agree

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
130.	If I get sick, it is my own behavior which determines how soon I get well						
131.	I am in control of my health						
132.	When I get sick, I am to blame						
133.	The main thing which affects my health is what I myself do						
134.	If I take care of myself, I can avoid sickness / illness						
135.	If I take the right actions, I can stay healthy						

**Anxiety**

Indicate with a tick (✓) how much you have experienced any of the following:

	Not at all	Mildly	Moderately	Severely
136. Numbness (Not feeling pain / anything)				
137. Feeling hot				
138. Wobbling in legs				
139. Unable to relax				
140. Fear of the worst				
141. Dizzy or lightheaded				
142. Heart pounding				
143. Unsteady				
144. Tired				
145. Nervous(uneasy)				
146. Feelings of choking				
147. Hands trembling				
148. Shaky				
149. Fear of dying				
150. Scared				
151. Indigestion or discomfort in the abdomen				
152. Faint				
153. Anger				
154. Sweating (not due to heat)				

**Sexuality and HIV / AIDS**

201. Have you ever had sex?

1=Yes      2=No (Go to 206)

202. At what age did you have your first sexual intercourse? \_\_\_\_\_

203. Did you plan for your first sexual intercourse?

1 = Yes, I planned for my first sexual intercourse  
2 = No, it just happened

204. Have you ever used condoms?

1=Yes (Go to 206)      2=No

205. If No, why have you never used condoms? (Circle all that apply)

- 1 = I didn't know how to use condoms
- 2 = Condoms are not my responsibility
- 3 = I didn't have a condom with me
- 4 = I didn't think I was at risk for HIV/AIDS or STDs
- 5 = It is too hard to stop and put one on
- 6 = Condoms reduce pleasure
- 7 = I was with someone I really cared about
- 8 = Condoms are against my religious beliefs
- 9 = I was too embarrassed

10 = I was pressured into having sex without a condom

206. What percent of the students in your school your own age do you think have had sexual intercourse?

- 1 = None
- 2 = 1% - 25%
- 3 = 26% - 50%
- 4 = 51% - 75%
- 5 = 76% - 99%
- 6 = All of them

207. What do you think is the best age for a teenager to start having intercourse? \_\_\_\_\_

Risk Perception

208. What are your chances of getting AIDS?

- 1 = Not possible
- 2 = Very likely
- 3 = Somewhat unlikely
- 4 = Equal
- 5 = Somewhat likely
- 6 = Very likely
- 7 = Almost certain

209. Compared to other students, what are your chances of getting AIDS?

- 1 = Much less
- 2 = Less
- 3 = A little less
- 4 = Same
- 5 = A little more
- 6 = More
- 7 = Much more

210. Before you finish SSS, how likely are you to have sexual intercourse?

- 1=No chance
- 2=Somewhat likely
- 3=Extremely likely
- 4= I have already had sex

211. Over the past year, how many sexual partners have you had? \_\_\_\_\_

212. Have you ever had sex following alcohol consumption?

1=Yes      2=No (Go to 213)

212a.If yes, how often?

1 = only once

2 = two times

3 = three times

4 = more than three times

213.Have you ever had anal sex (sexual intercourse through the anus) before?

1=Yes      2=No

### HIV/AIDS KNOWLEDGE

Please tick your response in terms of your knowledge about HIV / aids

		True	False	Don't know
206.	AIDS is a medical condition in which your body cannot fight off diseases			
207.	AIDS is caused by a virus			
208.	AIDS is a condition you are born with			
209.	Stress causes AIDS			
210.	If you kiss someone with AIDS you will get the disease			
211.	If you touch someone with AIDS you can get AIDS			
212.	What you eat can give you AIDS			
213.	Anybody can get AIDS			
214.	AIDS can be cured			
215.	Women are more likely to get AIDS during their periods			
216.	AIDS can be spread by using someone's personal belongings like a comb or hairbrush			
217.	AIDS is not all serious, it is like having a cold			
218.	The cause of AIDS is unknown			
219.	Just being around someone with AIDS can give you the disease			
220.	Having sex with someone with AIDS is one way of getting it			
221.	If a pregnant woman has AIDS, there is a chance it may harm her unborn baby			
222.	Most people who get AIDS usually die from the disease			
223.	Using a condom during sex can lower the risk of getting AIDS			
224.	You can get AIDS by shaking hands with someone who has it			
225.	Receiving a blood transfusion with infected blood can give a person AIDS			
226.	You can get AIDS by sharing needle with a drug user who has the disease			
227.	AIDS is a life-threatening disease			
228.	People with AIDS usually have lots of There is no cure for AIDS other diseases as a result of AIDS			
229.	I can avoid getting AIDS by exercise regularly			
230.	AIDS can be cured if treated early			
231.	A new vaccine has recently been developed for the treatment of AIDS			

## CONTENT OF INTERVENTION

### Sessions/topics of “Sense and Sexuality”

Session	Topic
i.	<p><b><i>Sexuality and Reproductive Biology</i></b></p> <p>The essence of this topic was to create openness and confidence within the adolescent such that he or she becomes comfortable any time the issue of sex and reproduction comes up for discussion. This session looks at the biology of reproduction. It focused on the functions of sex organs, puberty and how pregnancy occurs. When we think of sexuality, we might just think about our sex organs. But our sexuality has as much to do with how we think and feel, as it does with how we behave. Sexuality is basic part of our physical, mental, emotional, and spiritual lives. Young people need opportunities to openly discuss sexuality and its meaning as well as knowing their sexual bodies and how pregnancy happens.</p>
ii.	<p><b><i>Abstinence:</i></b></p> <p>This generally was to enable the subjects identify some of the challenges confronting adolescents who decide to abstain from sexual intercourse. Example, rejection from sexually active friends, loneliness, and intrusive sexual thoughts due to their peculiar developmental age. Defining abstinence as a conscious effort to stay away from sexual intercourse, the intervention aimed at strengthening the resolve of participants to abstain.</p>
iii.	<p><b><i>Resisting Peer Pressure</i></b></p> <p>Recognizing peer pressure to be a major problem in adolescence as far as character formation is concerned, the intervention sought to expose the adolescent to the subtle influences of peer pressure and how to handle it. For example, monetary enticement from adults, name-calling from peers, and media influences.</p>
iv.	<p><b><i>Ethics and Sexuality:</i></b></p> <p>Sexuality has physical, ethical, and emotional dimensions. Defining ethics as the set of principles individuals use to determine what behavior is right and good in their relationship with others, the intervention aimed at exposing adolescents to an ethical framework that would help them make more responsible decisions regarding sexual behavior.</p>

Session	Topic
v.	<p><b><i>Protecting Yourself:</i></b>  Sex can be wonderful and powerful. But vaginal intercourse without birth control, even once, even the first time, could cause pregnancy and infections with STDs. The surest way to avoid pregnancy is not to have vaginal intercourse and the surest way to avoid sexually transmitted diseases is not to have any kind of sexual intercourse. Information about protecting one's self (i.e., abstinence and contraception) is important for young people. As the topic suggests, the intervention concerned enlightening the adolescent on the numerous protective ways by which he or she could protect self. Both barrier and non-barrier methods of contraception were discussed. Emphasis was however, put on the barrier methods as an advisable option for the youth since they protect against STDs and pregnancy. Nevertheless, they were made to understand that condoms do not protect 100 per cent.</p>
vi.	<p><b><i>Condom Use and Negotiation</i></b>  During this session, participants were taught through practical demonstration how to use condoms and how to negotiate condom use with a reluctant or ignorant partner.</p>
vii.	<p><b><i>HIV/AIDS Education</i></b>  The HIV/AIDS session provided general information about the transmission and prevention of HIV as well as taught subjects how to assess their own sexual risk behaviours and change them.</p>
viii.	<p><b><i>Drugs and Sexuality</i></b>  Drugs and alcohol impair judgment. Alcohol and substance use influence high risk sexual behavior by distorting cognitive processes related to risk perception and assessment. The participants were taken through the psychological effects of alcohol and other substances like nicotine and marijuana as well as their biological effects. This was to expose them to the relationship between substance and risky sexual behavior.</p>
ix.	<p><b><i>Assertiveness Training</i></b>  Subjects were taken through assertiveness training not only for them to be bold in discussing sexuality, but also to raise their self-efficacy in all facets of life, especially in interpersonal relationships.</p>

## INTERVENTION QUESTIONNAIRE

### SELF-EFFICACY

		Not at all true	Barely True	Moderately True	Exactly
1	I can always manage to get out of difficult sexual encounters if I try hard enough				
2	If someone pressures me to have sex, I can find the ways and means to get what I want (avoid it)				
3	It is easy for me to stick to my aims of not having sex and accomplish my goals				
4	I am confident that I can use condoms/abstain efficiently in an unexpected sexual circumstances				
5	Thanks to my resourcefulness, I know how to handle difficult sexual encounters				
6	I can abstain from sex if I invest the necessary efforts				
7	I can remain calm when facing enormous pressure to have sex because I can rely on my coping abilities				
8	When I am confronted with the pressure to have intercourse, can usually find several solutions				
9	If I come under considerable temptation to have sex, I can usually find several solutions				
10	I can usually handle whatever sexual situation that comes my way				

### CHANCE HEALTH LOCUS OF CONTROL

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Slightly Agree	Strongly Agree
1	Not matter what I do, if I am going to get sick, I will get sick							
2	Most things that affect my health happens to me by accident							
3	Luck plays a big part in determining how soon I recover from an illness							
4	My good health is largely a matter of good fortune							
5	No matter what I do, I am likely to get sick							
6	If it is meant to be I will stay healthy							

### GLOBAL HIV/AIDS KNOWLEDGE

1. AIDS is caused by
  - a. a virus
  - b. unsanitary toilets or latrines
  - c. pollution
  
2. What does immune system do?
  - a. it builds strong muscles
  - b. it helps the body fights illness, such as colds, influenza or pneumonia
  - c. it improves eyesight
  
3. Presently, HIV, the virus that causes AIDS
  - a. can be passed from one person to another

- b. can be controlled with vaccines
  - c. cannot be passed from one person to another
- 4. As soon as a person is infected with HIV, he or she develops AIDS
  - a. true
  - b. false
- 5. All people who have AIDS have the same symptoms
  - a. true
  - b. false
- 6. New drugs are now available that can cure AIDS.
  - a. true
  - b. false
- 7. Without drugs that help people with AIDS to live longer, a person who develops AIDS will usually die in
  - a. 6 months to 2 years
  - b. 1 to 2 weeks
  - c. 5 to 10 years
- 8. Not having sex is a good way to prevent getting AIDS
  - a. true
  - b. false
- 9. You could become infected with HIV if you:
  - a. have sex with an infected person without using a condom correctly
  - b. have not been vaccinated against it
  - c. don't wash your hands after using the toilets
- 10. A baby can be born with HIV
  - a. true
  - b. false
- 11. HIV can be passed by:
  - a. sitting next to an AIDS-infected person on the bus
  - b. hugging a person with AIDS
  - c. sharing needles used for injecting drugs
- 12. HIV can be passed to people by mosquitoes
  - a. true
  - b. false
- 13. Only men who have sex with other men can get HIV
  - a. true
  - b. false

14. Who can get HIV/AIDS?
- only people who do to go to the hospital regularly
  - anyone who has unprotected sex (sex without a condom) or injects drugs with shared needles
  - only people who do not finish primary school
15. A person can pass HIV on to others only when she or he has obvious signs of the infections that can occur when the immune system is weakened
- true
  - false
16. It is possible to get HIV/AIDS from kissing an infected person
- true
  - false
17. HIV/AIDS is one of many different kinds of sexually transmitted diseases (diseases that can be spread through having sex. If you have another sexually transmitted disease, your chance of getting HIV/AIDS through having sex:
- low
  - stays the same
  - is lower
18. HIV/AIDS can be spread through sharing food, utensils, towels or bedding with an infected person
- true
  - false
19. Someone you like is pressuring you to have sex and does not want to use condom. You know that this person has already had unprotected sex with other people. If you have an unprotected sex with this person, what are your chances of getting HIV/AIDS?
- low
  - high
  - none
20. You have just heard that a student who sits next to you in school has HIV/AIDS. What are your chances of getting HIV/AIDS from sitting next to this student?
- none
  - high
  - low
21. You can find out you have HIV by getting:
- a blood test
  - a skin examination
  - an x-ray

22. A person can “pass” an HIV/AIDS test, that is negative, but still be infected with HIV/AIDS.
- true
  - false
23. A person who looks and feels healthy does not need to be tested for HIV/AIDS
- true
  - false
24. If you find out that you are infected with HIV/AIDS, you should:
- keep it secret
  - stay away from other people
  - take the best possible care of your health
25. Five young people are infected with HIV/AIDS every minute.
- true
  - false
26. By December 1998, about 13.9 million people worldwide had died of HIV/AIDS. How many of these were under the age of 15?
- 500,000
  - none-only adults get HIV/AIDS
  - 3.2 million
27. If you are infected with HIV/AIDS, there is no way you can prevent your friends and family from also becoming infected.
- true
  - false
28. Since the beginning of the HIV/AIDS epidemic, how many young people Worldwide have become orphans due to HIV/AIDS?
- 9 million
  - 1.5 million
  - 4.7 million
29. The spread of HIV/AIDS is contributing to an increase in poverty in some countries.
- true
  - false
30. All countries have rapidly rising numbers of people newly infected with HIV/AIDS
- true
  - false

## EVALUATION QUESTIONNAIRE

Below is a list of topics discussed under the Sense and Sexuality Workshop.  
For each topic, **CIRCLE** your level of satisfaction.

Topic	Presentation / Teaching	Content	Time
Abstinence	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Sexuality and Reproductive Biology	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Resisting Peer Pressure	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Ethics and Sexuality	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Protecting Yourself	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Condom Use and Negotiations	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
HIV/AIDS Education	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Drugs and Sexuality	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time
Assertiveness Training	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Not at all satisfactory 2. Somewhat satisfactory 3. Very satisfactory	1. Alright 2. Undecided 3. Needed more time

2. Overall, how helpful do you think the Sense and Sexuality Workshop has been to you?

- Not at all helpful ( )
- Somewhat helpful ( )
- Very helpful ( )

3. What personal difficulty has the workshop addressed?

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4. Sincerely state what you didn't like about the Workshop?

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5. How could it have been improved?

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6. Indicate your level of recommendation of this Workshop to a friend?

- Strongly recommended ( )
- Recommended ( )
- Not recommended ( )



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