

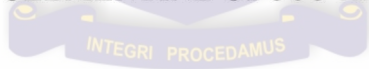
**SCHOOL OF PUBLIC HEALTH  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA, LEGON**

**TOPIC:**

**SEXUAL BEHAVIOUR AND CONTRACEPTIVE USE IN  
TERTIARY EDUCATIONAL INSTITUTIONS:  
A CASE STUDY OF THE UNIVERSITY OF GHANA,**

**LEGON**

**BY CLEMENTINE OFOSU-AIKINS**



**A DISSERTATION SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH  
UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT FOR THE  
AWARD OF MASTER'S DEGREE IN PUBLIC HEALTH**

**AUGUST 2008**

**DECLARATION**

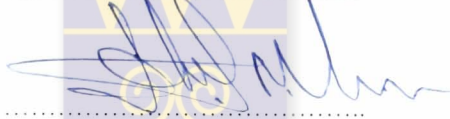
I hereby declare that apart from references to other people's work that have been duly cited, this dissertation is the result of my own research that it has never been presented either in part or in whole for a dissertation

  
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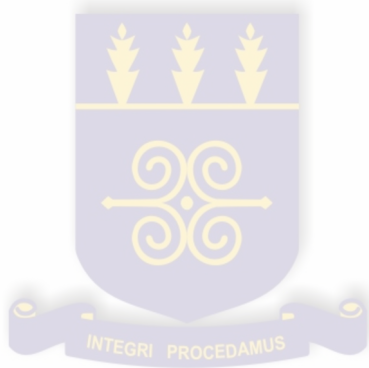
  
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## **DEDICATION**

I dedicate this piece of work to my husband, Eric Odei my children, Paa Kweku and Maame Salome for their immense support and encouragement.



## ACKNOWLEDGEMENTS

I am most thankful to the almighty God who granted me the strength and ability to conduct this study.

I am also grateful to the School of Public Health, Department of Family, Population and Reproductive Health and my academic supervisors, Prof. Chuks, Dr Norgbe and Prof. Binka for their advice and support.

I thank all the heads of halls/hostels, hospital/ health facilities, student leaders and the dean of students of the University of Ghana as well as my respondents.

My sincere appreciation also goes to Mr. David Mensah of Noguchi Memorial Institute for Medical research who assisted me with some aspect of the data analysis.

Last but not the least, my thanks also go to all the field workers and the University community members.



## **ABSTRACT**

The study was a cross-sectional study of students of the University of Ghana, Legon.

The objective was to determine sexual behaviour, knowledge and use of contraceptives among these students.

The methods or techniques used included:

I) Focus group discussion involving students, heads of hostel, service providers and key informants.

II) A cross-sectional survey of 507 undergraduate students was done using structured questionnaire.

### **FINDINGS:**

The findings indicate that a substantial proportion (52%) of the students have ever had sexual intercourse with the males (61.2%) outnumbering the females (38.6%). The mean age at first sexual experience is 18.7 years and the median age is 19 years. The mean ages at first sex for the males and females are 18.4 years and 19.3 years respectively with the median ages being 19 years and 20 years respectively. More males than females have multiple sexual partners, and have had sex in the last 30 days.

The respondents who have ever been pregnant are 42 (15.9%) and 28 (66%) of these pregnancies are aborted.

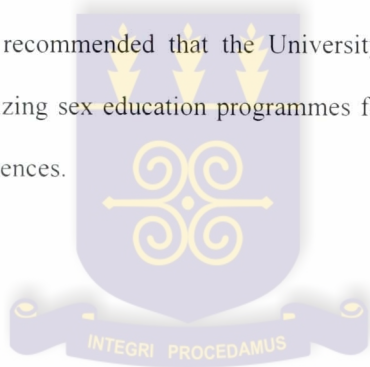
Level of awareness about contraceptives was 100% with the male condom being the most commonly known (95.6%) and used method followed by the pill. The students who have ever used contraceptives were 92.1 % but only 41.2% always used them.

Most (87.1%) of the students have ever used a condom but of these, only 59 % always use condoms during sexual intercourse with a new partner. The mean age at first condom

use is 19.6 years. The minimum age at first sex is 8 years while the minimum age at first condom use is 13 years meaning that, some students could be exposed to pregnancies and STDs including HIV/AIDS. The female respondents who have never bought condoms are about 4 times as many as their male counterparts. Although majority of the males (71%) and females (51%) admit that contraceptives are affordable and accessible their use of contraceptives was not consistent.

Logistic regression analysis revealed that, factors that are significantly related to contraceptive use among students are: Being a male student, having benefited from sex education programmes on campus as well as residing in a mixed sex Hall/hostel.

From these findings, it is recommended that the University authorities adopt a more holistic approach in organizing sex education programmes for students paying attention to culture and gender differences.



## TABLE OF CONTENTS

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT.....	iv
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
LIST OF ABBREVIATIONS.....	xi
DEFINITION OF TERMS.....	xii
<b>CHAPTER ONE: INTRODUCTION</b>	
1.1 BACKGROUND TO THE STUDY.....	1
1.2 PROBLEM STATEMENT.....	6
1.3 JUSTIFICATION OF THE STUDY.....	8
1.4 CONCEPTUAL FRAMEWORK.....	10
1.5 OBJECTIVES OF THE STUDY.....	12
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
2.1 DEMOGRAPHIC CHARACTERISTICS AND CONTRACEPTIVE USE.....	13
2.2 SOCIO-CULTURAL FACTORS THAT INFLUENCE CONTRACEPTIVE USE.....	14
2.3 BEHAVIOUR FACTORS THAT INFLUENCE CONTRACEPTIVE USE.....	15
2.4 HOW SERVICE –RELATED FACTORS INFLUENCE CONTRACEPTIVE USE.....	16
2.5 UNIVERSITY SUPPORT SYSTEM, SEX EDUCATION PROGRAMMES.....	17
<b>CHAPTER THREE: METHODOLOGY</b>	
3.1 STUDY DESIGN.....	20
3.2 STUDY LOCATION/ AREA.....	21

3.3 VARIABLES.....	27
3.4 STUDY POPULATION AND UNIT .....	27

**(TABLE OF CONTENTS CONTINUED)**

3.5 SAMPLING.....	27
3.6 SAMPLING METHOD.....	27
3.7 DATA COLLECTION TECHNIQUE & TOOLS.....	30
3.8 ACTUAL DATA COLLECTION.....	31
3.9 QUALITY CONTROL.....	31
3.10 DATA PROCESSING AND ANALYSIS.....	32
3.11 LIMITATIONS OF THE STUDY.....	32
3.12 ETHICAL CLEARANCE.....	33

**CHAPTER FOUR: FINDINGS OF THE STUDY**

4.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS.....	34
4.2 RESPONDENT’S LEVEL OF KNOWLEDGE OF CONTRACEPTIVES.....	38
4.3 SEXUAL BEHAVIOUR.....	42
4.4 CONTRACEPTIVE USE .....	49
4.5 PLACE FOR SEXUAL ACTIVITY .....	56
4.6 AWARENESS, IDENTIFICATION OF SYMPTOMS & INFECTIONS WITH STDS.....	61
4.7 ACCESSIBILITY, AVAILABILITY AND AFFORDABILITY OF CONTRACEPTIVES.....	66
4.8 FREQUENCY OF CONDOM USE.....	68
4.9 RESULTS OF LOGISTIC REGRESSION.....	73

**CHAPTER FIVE: DISCUSSION**

5.1 LEVEL OF KNOWLEDGE OF CONTRACEPTIVES .....	75
5.2 SEXUAL ACTIVITY .....	76
5.3 CONTRACEPTION.....	77
5.4 PLACE FOR SEXUAL ACTIVITY.....	78
5.5 ASSESSMENT OF REPRODUCTIVE HEALTH NEEDS.....	79
5.6 SERVICE –RELATED FACTORS.....	80

5.7 DETERMINANTS OF CONTRACEPTIVES USE AMONG TERTIARY STUDENTS.....81

*(TABLE OF CONTENTS CONTINUED)*

**CHAPTER SIX: CONCLUSION AND RECOMMENDATION**

6.1 CONCLUSION.....83  
6.2 RECOMMENDATIONS.....84

**APPENDICES**

**APPENDIX A:** TABLE OF VARIABLES..... 86  
**APPENDIX B:** REFERENCES.....87  
**APPENDIX C:** CONSENT FORM .....92  
**APPENDIX D:** QUESTIONNAIRE.....93  
**APPENDIX E:** INTERVIEW GUIDE FOR MANAGER OF COMBACEPTH..... 108  
**APPENDIX F:** INTERVIEW GUIDE FOR DEAN OF STUDENTS..... 109  
**APPENDIX G:** INTERVIEW GUIDE FOR MANAGER OF REPRODUCTIVE HEALTH &  
FAMILY PLANNING UNIT OF UG..... 110  
**APPENDIX H:** F G D GUIDE FOR BLOCK/FLOOR REPRESENTATIVES..... 111  
**APPENDIX I:** INTERVIEW GUIDE FOR SRC PRESIDENT.....113  
**APPENDIX J:** SCHEDULE OF ACTIVITIES/ WORK PLAN.....114



**LIST OF TABLES**

<b>TABLE</b>	<b>PAGE</b>
4.1 Background Characteristics of Respondents.....	34
4.2 Level/Year of Study of Respondents.....	35
4.3 Knowledge of Methods Uses, Side effects and Benefits of Contraceptives .....	41
4.4 Sexual Experience by Level of Study.....	44
4.5 Current Sexual behaviour by Sex of Respondents.....	48
4.6 Contraceptive Use by Sex of Respondent.....	53
4.7 Pregnancy and Abortion by Year of study.....	55
4.8 Place for Sexual Activity.....	56
4.9 Students Perception about Sex on Campus.....	58
4.10 Reasons why Some Students do not Have Sex on Campus .....	59
4.11 Awareness, Identification of Symptoms and Infections with STDs.....	61
4.12 Current Sexual Behaviour by Ever had STD.....	64
4.13 Sexual Activity, Level of Study, and Contraceptive Use by identification of Symptoms & Ever Had STD.....	65
4.14 Accessibility, Availability and Affordability of Contraceptive.....	66
4.15 Accessibility, Availability and Affordability of Condoms .....	71
4.16 Regression Analysis of Demographic, Socio-cultural, Behaviour and Service- Related Variables on Contraceptive Use.....	74

## LIST OF FIGURES

FIGURE.....	PAGE
4.1 Place of Dwelling of Respondents .....	37
4.2 Benefits from Sex Education Programme .....	42
4.3 Ever had Sex by Sex of respondents.....	43
4.4 Reasons for First and Last Sexual Activity.....	45
4.5 Ever Use of Contraceptives.....	49
4.6 Contraceptive Use at First Sexual Experience by sex of respondents .....	50
4.7 Current Use of Contraceptives.....	51
4.8 Reasons for not Knowing HIV status.....	63
4.9 Ever use of Condoms.....	68
4.10 Condom Use at First and Last Sexual Experience .....	69
4.11 Purchase of Condoms by Sex of Respondents.....	72

## LIST OF ABBREVIATIONS (ACRONYMS)

1. ARSRC African Regional Sexuality Resource Centre
2. ACU Association of Commonwealth Universities.
2. FGD Focus Group Discussion
3. CDCP: Centre for Disease Control and Prevention
4. COMBACEPH: Community Based Center for Partners in Health
5. GDHS: Ghana Demographic and Health Survey
6. GHS: Ghana Health Service
7. HIV/AIDS Human Immuno Deficiency Virus /Acquired Immune Deficiency Syndrome
8. MOH Ministry of Health
9. NACP National AIDS Control Programe
10. SRC Student's Representative Council
11. UN: United Nations
12. WHO: World Health Organization
13. UH: University Hospital
14. TALIF: Teaching and Learning Fund
15. GSS Ghana Statistical Service

## **DEFINITION OF TERMS**

- 1. Sexual behaviour:** Any actions that allow the expression of one's sexual feelings. E.g. kissing, masturbation & penetrative sex, or patterns of sexual activity.
- 2. Contraceptive use:** A process, technique, medication or device, for the prevention of pregnancy.
- 3. Sexually transmitted infections:** Infections acquired through sexual intercourse.
- 4. Undergraduate students:** Students in the University who are now pursuing first Degree
- 5. "Chrife":** Devoted Christians

## **CHAPTER ONE**

### **1. INTRODUCTION**

This chapter deals with sexuality issues, current evidences in sexual behaviour vis-a-vis use of contraceptives and ramifications of unhealthy sexual behaviours. Trends in sexually transmitted infections including HIV/AIDS, unintended pregnancies and unsafe abortions globally, in Africa and Ghana have also been mentioned. The research problem and justification of the study are also explained.

### **1.1 Background to the Study**

#### **1.1.1 Subject Matter**

Sexuality encompasses sex, gender, identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, behaviors, values, practices, roles and relationships. It pertains to the totality of being human, being male or female. Sexuality can be defined in broad terms as the social construction of biological drive (WHO, 2002) which often deals with issues such as whom one has sex with, in what ways, under what circumstances, and with what outcomes a person engages in sex.

This suggests a multidimensional perspective of sexuality which is shaped by biological, psychological, economic, political, social, cultural and religious factors operating within particular culture in each society.

Sexual behaviours are any actions that allow the expression of one's sexual feelings. These behaviours include hand-holdings and kissing as well as masturbation and penetrative intercourse.

Healthy sexual behaviours are consensual, non-exploitative and include actions which protect against unwanted pregnancies and sexually transmitted diseases. Healthy sexual behaviours also include reduction in the number of sexual partners, effective use of contraceptives and prophylaxis when appropriate and careful selection of one's sexual partner. People who live sexually healthy lives practice other preventive health actions such as breast or testicular self examination, screening for cervical cancer, and if appropriate being tested for human immunodeficiency virus, (CDCP, 1997)

The challenge of achieving sexual health begins early in life and continues throughout lifespan, and the actions taken to protect sexual health can vary from one stage of development to the next. Protecting sexual health is a collective responsibility of an individual, the family, community and the state. It is therefore necessary for their sexual health to be protected through activities such as abstinence, delay of sexual intercourse, as well as consistent and correct use of contraceptives especially barrier methods.

The role of public health practitioners includes providing people with sexuality education, sexual and reproductive health care, counseling and giving individuals the freedom to make appropriate sexual and reproductive health choice (NCASH, 1995).

Measures of healthy sexual behaviours include condom use among people with multiple sexual partners, rate of sexually transmitted infections including HIV/AIDS and unwanted pregnancies.

### **1.1.2 Current Evidence in Contraceptive Use**

Contraceptive is defined as a process, technique, medication or device, for the prevention of pregnancy (Encyclopedia of Public Health 2006).

It is estimated that world contraceptive prevalence (modern methods) is about 61%. In more developed regions it is about 69%. For less developed regions the percentage is 59, for Latin America and the Caribbean is 71%. In Africa the prevalence is (27%) which is much lower than developed nations and other areas in developing world. For Ghana it is only 19% (UN Report, 2003). Contraceptive prevalence in Accra is 31%.

Levels of contraceptive awareness is high among Ghanaian adolescents (98.2%) among males and (95.5%) among females, however unsafe sexual practice is very common (Agyei et al, 2000).

Studies in this area proves that the higher the socio-economic status of a woman the greater her chances of using modern contraceptives (Gakidou et al, 2007). Globally the unmet need for contraception is about 38% and this gives an estimate of about 123million women who would want to reduce the number of children they have and space child bearing but are not using any modern method (WHO 2007).

The low prevalence of contraceptive use especially condom use coupled with unhealthy sexual behavior contributes to the global burden of STIs, HIV/AIDS, unintended pregnancies and unsafe abortions.

### **1.1.3 Ramifications of Unhealthy Sexual Behaviours**

The best available estimates indicate that each year some 340 million new cases of syphilis, gonorrhoea, chlamydia and trichomoniasis occur in men and women aged 15–49.

Over all, STI prevalence rates continue to rise in most countries, including developed countries (UNAIDS/WHO report 2006).

A total of 39.5 million people were living with HIV in 2006 (2.6 million more than in 2004). The number of new infections in 2006 rose to 4.3 million in 2006 (400,000 more than in 2004). According to UNAIDS/WHO report, about 46 million people in the world are infected with HIV/AIDS. Sub-Saharan Africa remains the most affected region in the world with an estimate of two thirds of all the infected people. As many as 2.1 million deaths accounting for about three quarters of global deaths due to AIDS occur in Sub-Saharan Africa.

It is estimated that about 211 million pregnancies occur each year. Out of this number about 87 million of them are unintended. Forty six million of these unintended pregnancies end in induced abortion each year. Of the 46 million pregnancies that are terminated each year around the world, approximately 60% are carried out under unsafe conditions. It is estimated that in Africa, there are 32 unsafe abortions per 1000 women (Grimes et al 2006).

It is estimated that up to 100 000 maternal deaths could be avoided each year if women who did not want children used effective contraception.

When maternal illnesses are also taken into account, preventing unwanted pregnancies could avert, each year, the loss of 4.5 million disability-adjusted life years. The risk of dying from an unsafe abortion is around 350 per 100, 000 women and 68 000 women a year die in this way. Most of these occur in developing countries. In addition, the non-fatal complications and the sequel contribute significantly to the global burden of disease

not to mention the emotional turmoil that goes with so many unsafe abortions (WHO, 2004).

#### **1.1.4 Trends in the Prevalence of STIs, HIV/AIDS, Unintended Pregnancies and Unsafe Abortion in Ghana.**

According to the GHS report (2003), there is an increase in the incidence of syphilis in Ghana especially in the Central region. Adjei et al (2003) found out that the sero prevalence of syphilis among sampled blood donors was 7.5%.

The rate of HIV/AIDS dropped from 2.3% in 2005 to 2.2% in 2006. There has been a further decline from 2.2 in 2006 to 1.9 % in 2007 (WHO 2006, NACP, 2008). However there was a caution that the results only indicate stabilizing condition. There were also alarmingly huge regional differences among the youth. The highest prevalence among 15-24 year group was recorded in Eastern and Central Regions as a prevalence of 6 %. The prevalence of modern contraceptive use is 19% (United Nations statistics, 2007).

Out of the causes of maternal deaths in Ghana, unsafe abortion is estimated to contribute to 11 % (GHS, 2007). Similar studies revealed that, 26.1% of women in rural Ghana used induced abortion as a form of contraceptive (Geelhoed et al, 2002). Furthermore, studies in this area revealed that, 38.1% of students in tertiary institutions got pregnant in Nigeria (Adinma et al, 1994).



## **1.2 Problem Statement**

University students fall into the age group ( 17-30) that is sexually active (Virtala ,Kunttu, et al ( 2007), the long lapse of time between nobility and legal sexual union makes it unreasonable to expect students to live in unquestioning chastity. It is therefore the responsibility of the University leadership to re-orient health services to meet their reproductive health needs whiles on campus. However, such reproductive health services are not always available because the whole issue of sexuality is shrouded in mystery.

The University of Ghana is a community with a student population of about 28,000 (University of Ghana, 2008). Undergraduate students form about three quarters of the entire student population. These students who might have had at least ten years of primary and secondary education are expected to have benefited from sex education programs. They are expected to be informed about safe sex which is required to influence their decisions e.g. negotiating for safer sex and proper use of contraceptives. On the contrary, a study carried on University of Ghana students about emergency contraceptives, revealed that: only 43.2% of the respondents had ever heard about emergency contraceptives which is used to prevent pregnancy after having unprotected sex (Baiden, et al, 2002). They rather resort to crude means such as drinking concentrated sugar solution, enema and douching to induce abortion when a pregnancy has occurred. Furthermore according to Ahiadeke (1997), some women go to the extent of inserting foreign objects into their wombs in order to terminate pregnancy. This can adversely affect the health of these women or even result in maternal death. It is estimated that, abortion contributes to 11 % of maternal deaths in Ghana (Ghana health service, 2007). This unhealthy sexual practice could be attributed to the fact that in Ghana, sexuality is

usually not discussed among families. The growing adolescent does not have the opportunity to learn fundamental issues. Upon admission to the University they are thrown into large University community in an active co-educational system with none of the restrictions from the pre- tertiary institutions.

Since the establishment of the University of Ghana, there has not been much extensive and continuous published research on sexual behavior and contraceptive use by students of the University. This shows that there is the need for continuous research on the reproductive health of the students. This study is thus being conducted to unearth sexual practices, knowledge and use of contraceptives among students and to explore factors that influence their decisions about sex in recent times.

### **1.3 Justification of the Study**

The age distribution of undergraduate students, who were the target population in this study, is between the ages of 17-24 years (University of Ghana 2008). Incidentally this age group comprises a wide range of sexually active age brackets. Social activities that are organized by the school include; inter hall sports, beauty pageants, hall week celebrations, promotion of commercial products, just to mention a few. This special environment created by the University community encourages interactions between students and immediate environment outside campus. It is envisaged that these arrangements foster interactions with partners among students (Anarfi, 2005).

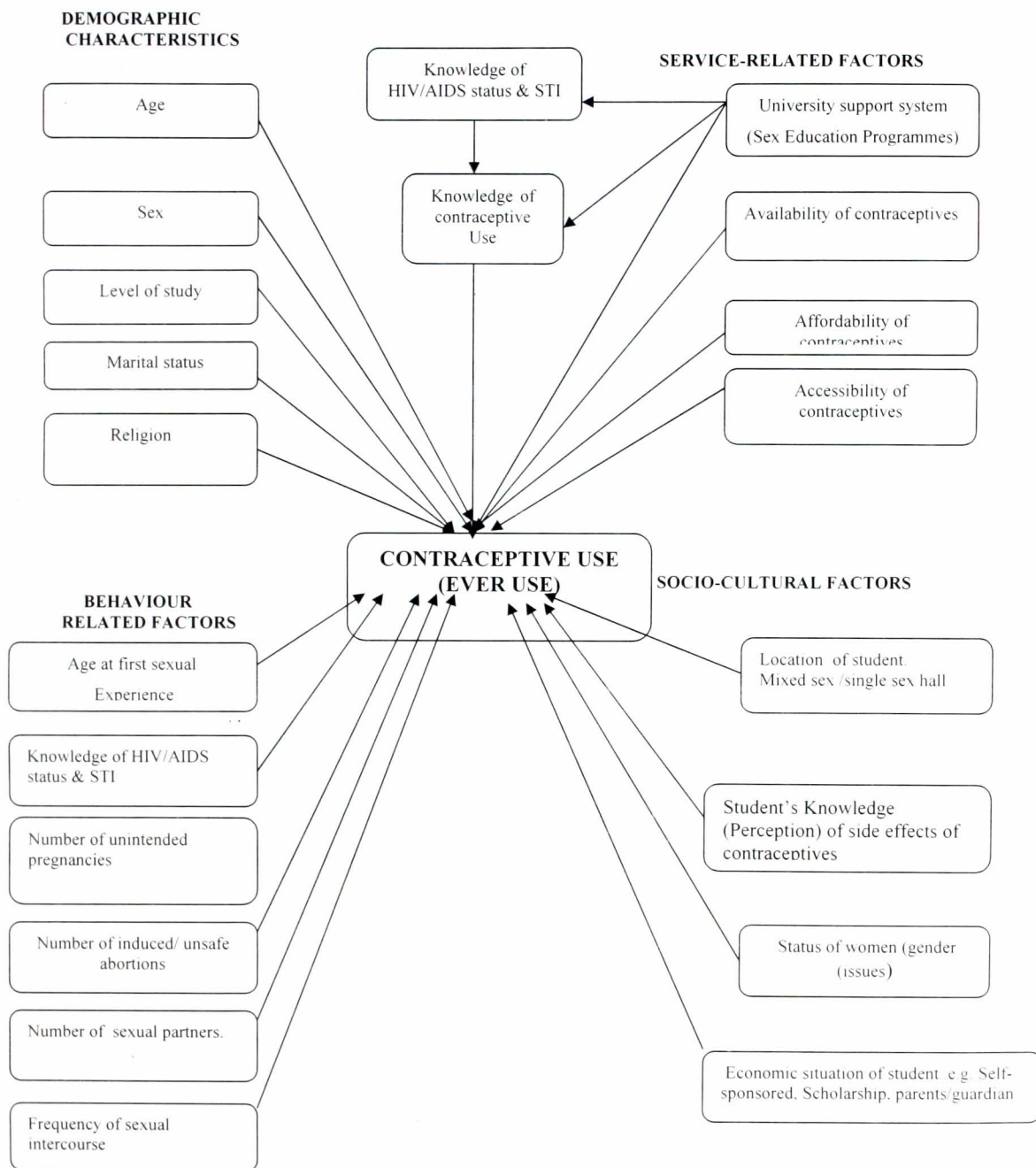
There are not enough policies to guide these social activities that provide conducive setting for unhealthy sexual behaviors. This could result in HIV/AIDS, unintended pregnancies and other sexually transmitted diseases.

Information from such a study would partly serve as baseline data for the School of Public Health and the University as a whole. This information could influence decision-making concerning policies to guide these activities.

Within the Ghanaian socio-cultural context where sex education is often perceived as a taboo, research findings have proved that it rather enhances healthy sexual behavior among sexually active people (African Sexuality Resource Centre, 2005). Information obtained from the study would help ascertain the level of awareness of students about sexuality issues and contraception. It would also help in monitoring campus-based sex education programmes and other reproductive health services on campus.

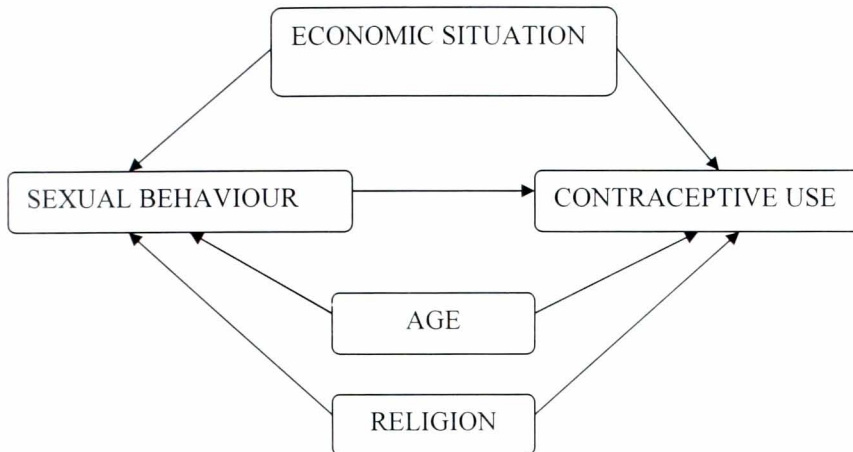
The University of Ghana was chosen because of its central location, demographic heterogeneity of the students and population size which could make findings from the study almost applicable to other tertiary institutions within the country.

## 1.4 Conceptual Framework of Determinants of Contraceptive Use



Source: Author's own construction

### 1.4.1 Confounders



### Conceptual Frame Work

From the conceptual frame work, the outcome (dependent) variable is ever use of contraceptives. This can be influenced by the grouped independent variables namely demographic characteristics, behaviour factors, service related as well as socio- cultural factors. All these are explanatory (independent) variables.

### Confounders

From the diagram 1.4.1, it can be observed that the economic situation of the respondent can influence both their sexual behaviour and use of contraceptives. Similarly, the age and religion of the respondent can influence their use of contraceptives.

## **1.5 Objectives of the Study**

### **a. General Objective**

The study is to determine the sexual behavior, knowledge and contraceptive use among students of the University of Ghana.

### **b. Specific Objectives**

1. To determine the current and ever use of contraceptives among students.
2. To determine the level of knowledge of contraceptives among students.
3. To determine the mean age at first sexual experience among students.
4. To determine the frequency of condom use among students
5. To assess the reproductive health needs of students.

## **CHAPTER TWO**

### **2. LITERATURE REVIEW**

This chapter discusses the factors that affect use of contraceptives. The factors have been categorized into demographic characteristics, behavioral, socio-cultural and service related factors and how they affect contraceptive use.

#### **2.1 Demographic Characteristics and Contraceptive Use**

Data from the National STI/HIV Control Programme Ghana (2001) suggest that the prevalence of HIV/AIDS was highest among the ages of 15-24. This presupposes that the youth are more likely to engage in risky sexual behaviour.

From the GDHS (1998) use of contraceptives (all methods) rises with age from 19% among women aged 15-19 years to peak at 26% among women aged 35-39 years.

According to Finney (2003), 80% of female medical students always used condoms whilst on holiday in the U.K as against 41% among their male counterparts.

According to Smith et al, (1991), college students often engage in sexual behaviours that put them at risk of HIV infection. It is also reported by Hall et al, (2004) that adolescent females in Canada and the United State have had two or more sexual partners. Furthermore, similar studies revealed that, 17.6% of males and 8.6 % of female Chinese undergraduate students reported being sexually active (Ma et al, 2006).

According to the Ghana Demographic and Health Survey,( 2003) and GSS (2003), mean age at first sexual experience in Ghana is lower for males than for females i.e.15 years for males and 16 years for females.

## **2.2 Socio-Cultural Factors That Influence Contraceptive Use**

According to Sai (1993) women in developing countries who are poor are powerless in relation to their male partners and this affects their contraception practice.

Studies carried out on the relationship between education and contraceptive use, such as in Ghana (2002) revealed that 11.6% of women with higher education used modern methods of contraceptives as against 6.6% of those with lower education using same methods. Agyei et al (2001) also reported in a similar study that, adolescents in urban and peri-urban areas in Accra who had access to secondary and post secondary education used more effective contraceptives such as condoms, injectables and the pill as compared to those in rural areas with only primary or no education who used rhythm method, foam and tablets that are less effective. It was also documented by (Bosompra, 2001) that, among university students in southern Ghana intended users of condoms held the view that their partners would approve of condom use. Similar results all reported from African settings revealed that, among Ethiopian secondary school students, individuals who know people living with HIV/AIDS or people who have died of HIV/AIDS had higher levels of intended condom use as compared to those who had no knowledge of such HIV/AIDS patients (Mulatu et al 2000).

With regard to religion, evidence in the literature, especially from Ghana, revealed that religion is pervasive (Busia, 1967) and as such affects the extent to which clients with various religious backgrounds use contraceptives. Tawiah ((1997) made some notable variations that suggest that Catholics are less likely to use modern methods as compared to other Christians. However it is worthy to note that between religious differentials and

contraceptive use, there is interplay of socio-economic and demographic characteristics. This can be confirmed by a study done by Tejada and colleagues in 1995 in which out of 81% Catholics and 10% of other religious affiliations between the ages of 15-24, in Dominica, 61% of males and 62% of females used modern methods of contraceptives during their last sexual intercourse. More so, female students who are in the age bracket of 15-24 who were Catholics were using modern contraceptives although the Catholic Church endorses the use of only natural methods of contraceptives.

Economic situation of the student i.e. whether self sponsored or on scholarship, or both, or sponsored by parents/ guardian may also be of great importance in determining the sexual behaviour and use of contraceptives. A study in Nigeria by Isiugo-Abanihe and Oyediran (1999) using secondary data from the Nigeria Demographic and Health Survey found that the youth with lower socio-economic status, had lower median age at first sexual experience and less frequent use of condoms than those with higher socio-economic status. According to WHO (2008), one out of every seven African female marry by the age of 15, supposing such an individual is in school, it would affect how she uses contraceptives.

### **2.3 Behaviour Factors (Sexual Behaviour) that Influence contraceptive Use.**

According to Mathews et al (2007) transition to first sexual intercourse among high school students was more likely among males than females, among older students than younger ones. First sexual intercourse was also significantly associated with intentions to have sexual intercourse, and poor self-efficacy to negotiate delayed sex as well as violence among intimate partners. From similar findings by Ceballos et al, (2006), first

sexual intercourse among high school students of Columbia was associated with unhealthy habits such as consumption of alcohol, cannabis and cigarettes. Ankomah, (1999) also found out among unmarried women in urban Ghana, sexual relations were contracted for financial, marital and material gains although quite different from prostitution.

#### **2.4 How Service –Related Factors Influence Contraceptive use**

According to a study conducted in Ghana by Steiner et al, (2000), in order to promote the effective use of modern contraceptives, the health care providers must have high level of knowledge of these contraceptives. They found that, only 34% of health care providers knew about emergency contraceptives. According to the policy statement of the American Association of Pediatricians (1999), which was revised in 2007, when pediatricians become part of the family, it helps the growing child to achieve and maintain reproductive health. Their roles include counseling, providing privacy, supporting sexual decision and helping the growing adolescent to adopt a positive sexual behaviour. However, it is worthy to note that in Ghana the average family cannot afford quality basic health care, let alone keep a family pediatrician. The young undergraduate student who has not been socialized to seek professional help may completely avoid seeking reproductive health service e.g. purchase condoms, report with sexually transmitted infection, when faced with the least financial difficulty.

Janowitz et al (2008) alluded to the fact that clients were more willing to pay for health care services other than family planning services. For this reason, there was the need to subsidize the cost of contraceptives even if they are not too expensive so that the poor and young people who do not have a source of income can use it. When women have to

pay for contraception out of pocket, some forego using any contraception at all. In order to ensure contraceptive security governments must make policies that would ensure that the percentage of national budget that covers family planning services is adequate. Unfortunately, in Ghana allocation for health service is minimal. About 80% of this small total allocation to health is used for personnel emolument (MOH, Ghana, 2007). The percentage for service delivery is low.

Even though the National Health Insurance Scheme was instituted to improve access to health care, coverage is still less than 60% (GHS, 2007). Worse still cost of contraceptives are not included in their package. It was estimated by insurance industries that if insurance policies were to include coverage for contraceptive supplies and services, the annual cost increase would be only \$16.00 per enrollee. By improving access to contraception, insurers would ultimately pay less for abortions, sexually transmitted infections including HIV/AIDS, prenatal care, delivery, and pediatric care all of which can cost considerably more than contraceptives. In Ghana however arrangements are being made by Ghana Health Service so that contraceptives are included in the essential drug list and supplied to all hospitals (GHS, 2003). This would go a long way to improve access.

## **2.5 University support system, sex education programmes.**

In Ghana, the health care delivery system is not efficient such that responsibilities transferred from the national level through the regions to the districts do not have adequate resources to match these responsibilities. Existing adolescent reproductive health policies are not implemented on a large scale. This problem spans across the nation to the extent that it affects adequate reproductive health services on the University

campuses. When university support system is improved by achieving cultural, geographical and financial access to contraceptives, reproductive health among students in tertiary institutions would improve.

This is evidenced by the findings of a research in Central America, where a randomized trial of a sex education programme was conducted by Martiniuk et al, (2002) among high school students on HIV/STD. The results of the study showed that changes in attitudes were observed in the intervention group than the control group. Furthermore, the former group had access to information necessary to make informed decision regarding their sexual health than the latter.

In Ghana, a comparative study done on service availability in 1993, 1996 and 2002 showed an increase from 59 to 95% of all health facilities providing family planning services in the country. However, geographical access to and availability of health care facility/family planning services is still a problem. This is because the peculiar needs of people in remote areas and students in tertiary institutions have not been well catered for even though there are policies to ensure contraceptive security for these special groups. The University has only one hospital that serves a student population of over (28,000) excluding the staff and neighboring communities. In this situation, it is envisaged that family planning services will not be readily available even though the facility is less than 3km off campus. From the findings of Jackson et al (2003), clients who were supplied with emergency contraceptives in advance were four times more likely to use it consistently than those who were not provided with. According to Grimes et al (2006), high rates of contraceptive use through improved access to family planning, stabilizes

fertility rates and reduces incidence of unsafe abortion hence maternal morbidity and mortality

In a case control study done by Philliber et al (2002), in which students and staff of schools were trained on sexuality issues, distribution of condoms and encouraging students to use contraceptives by providing them with transportation to family planning clinics. The results revealed that some of the students in the programme were not sexually active by the age of 18 years. Others who were sexually active used contraceptives thus keeping pregnancy and birth rates much lower among the participants compared to those who were not recruited into the programme. Teens who received comprehensive sex education were significantly less likely to report a pregnancy than those who received no formal sex education. Abstinence-only sex education programmes were not significantly associated with a reduction in teen pregnancy (National Survey of Family Health, 2008).

## **CHAPTER THREE**

### **3. METHODOLOGY**

The study design, study site, the target population, method of sampling and sample size have been discussed in this chapter. In addition, data collection technique and tools ethical consideration and possible limitations of the study have also been explained.

#### **3.1 Study design**

This is a cross-sectional study based within the university community and some of the accommodation facilities outside the premises.

The study was made up of:

- a) A cross sectional survey of undergraduate students at all levels of study.
- b) One focused group discussion comprising of a group of 8 people who are block/hall/representatives, and Student Representative's Council (SRC) members.
- c) In -depth interview of:
  - I) The Dean of students
  - II) Manager of Community Based Center for Partners in Health (COMBACPH)
  - III) Head of Reproductive Health/ Family Planning Unit of the University Hospital.

##### **3.1.1 Study type**

This is a descriptive study which examines the relationship between sexual behaviour and contraceptive use.

## **3.2 Study Location/ Area**

### **3.2.1 Brief History**

The University of Ghana was established on 11<sup>th</sup> August, 1948 by Ordinance as the University College of the Gold Coast, an affiliate college of the University of London. Its first Principal was the late Mr. David Mowbray Balme who built the College and laid the foundations for a sound University which is now a source of pride. Following independence in 1957, the University of Ghana was set up by an act of Parliament on 1<sup>st</sup> October, 1961 (Act 79) and the University began to award its own degrees. The then President of the Republic of Ghana, Dr. Kwame Nkrumah, became the first Chancellor with, Nana Kwabena Nketsia IV, Omahene of Essikado, as interim Vice Chancellor. Presently, the Vice Chancellor is Professor C.N.B. Tagoe.

It is the premier University in Ghana and takes pride in being one of the most prestigious universities in Africa. The University is a member of International Association of Universities (IAU), the Association of Commonwealth Universities (ACU), and the Association of African Universities (University of Ghana 2005).

### **3.2.2 Geographical Location**

The campus of the university lies about 13 kilometers, north-east of Accra, the capital of Ghana, at an altitude of between 300 and 400 feet (92-122) from the main University gate on the Dodowa Road. The University Avenue extends to Commonwealth hall on Legon Hill.

Along the University avenue are grouped other halls of residents, departments lecture rooms and laboratories. Midway from the Avenue is an open space, the university square, with an ornamental pool which is overhead the Balme library (named after David Mowbray Balme, the first Principal of the School). Across the university square are sports fields, central cafeteria, and halls of residence. Behind the Commonwealth Hall is an open air theatre with a Grecian style auditorium built unto the slope of Legon Hill. On the summit of Legon is the convocation of buildings which houses the University's administration offices, the Great Hall with a seating capacity of 1,500. On the southern side of the school are residential accommodations for staff, the university primary school, the Manciple's Organization, and the Noguchi Memorial Institute for Medical Research. On the left side are teaching departments, lecture halls and laboratories.

The southern part of the country, where the University of Ghana is located, has four seasons, two wet seasons (May - June and September - November) as well as two dry seasons (July - August and December - April). In the capital city of Accra, average temperatures range from 72 to 81 degrees Fahrenheit year round.

### **3.2.3 Mission Statement**

The mission of the University of Ghana is to develop world-class human resource and capabilities to meet national development needs and global challenges through quality teaching, learning, research and knowledge dissemination.

### **3.2.4 Student Population**

The student population is 28,482 consisting of graduate, undergraduate and students who are pursuing sub-degree programmes. This makes it the largest of all the public universities in Ghana. Out of this number the undergraduates are 18,965 students (Planning and Information Services Directorate, 2008).

### **3.2.5 Students' Representative Council (SRC)**

The Students' Representative Council serves as the mouthpiece for the entire student body, and seeks the interest of students in academic, social, cultural and scientific activities. It acts as a link between the student body and the University authorities. It is made up of an executive comprising the President, Secretary and Treasurer, elected on a campus-wide basis and six representatives from each of the five halls of residence. The Council has representation on the Council of the University and on University Boards and Committees which deal with student welfare.

### **3.2.6 Leadership**

The leadership is made up of one Vice Chancellor, one Pro-vice Chancellor, the Chairman of the University Council, Provosts of the Colleges, Deans of Schools, Directors, Rectors, Registrars, Heads of Departments and Heads of Halls and Hostels.

### **3.2.7 Dean of Students**

The Office of the Dean of Students provides counseling and information for students, administers the non-academic student disciplinary system and student grievance procedure, and assists in non-academic programme development. He works in close collaboration with the Heads of Halls, SRC, the Amalgamated Clubs, the Counseling and Placement Centre and the University Relations Office. The Dean also runs a Host Family Service for foreign students interested in being fostered by local families.

### **3.2.8 Health Facilities**

#### **a. Hospital**

The University hospital is located across the Accra-Dodowa road from the main University gate and behind the Legon Police Station. It has a bed capacity of 60. The Hospital offers medical, surgical, and reproductive and public health services to students, staff and the neighboring communities.

#### **b. Clinic**

A clinic is located at the basement of the central cafeteria and in front of the Mensah Sarbah Hall. The clinic runs half day and offers treatment for minor ailments among other services to students.

### **c. Community Based Centre for Partners in Health (COMBACEPH)**

The School of Nursing offers community based health services on the premises of the School. The centre was established to cater for the reproductive health needs of students and staff with emphasis on Legon students and other tertiary institutions within the environs of University of Ghana. Their main vision is promotion of positive sexual behaviour. And also increased access to youth friendly services to enhance national efforts thereby reducing prevalence of HIV and other sexually and reproductive health problems of young people especially in and around University of Ghana. Their services include reproductive health services, counseling on contraceptive use and voluntary counseling and testing for HIV/AIDS.

### **3.2.9 Academic and Residential Facilities**

The University has 2 colleges, 11 faculties, 4 schools, 5 institutes, 64 departments, 8 centres, and 3 agricultural research stations. The University of Ghana provides 78 undergraduate and 25 graduate programmes in various fields in the arts, social science, business, physical and biological sciences, medicine, dentistry, allied health sciences, agriculture, engineering sciences and law. Special programmes are offered in School of Performing Arts, African Studies and International Affairs. The university is presently affiliated to 21 public and private institutions for the award of degrees and diplomas.

The University believes in community living as an essential part of student life. It provides accommodation in halls of residence for both post-graduate and undergraduate students as well as flats and guest rooms for senior members and guests.



There are six halls of residence. These are: Legon Hall, Akafo Hall, Mensah Sarbah and Jubilee Hostel (mixed sex), Commonwealth Hall (males only) and Volta Hall (female students).

The average number of students per room is five. There are four students in the outer room and one student in the inner room for the main halls. The annexes do not have inner rooms. There are also students hostel for post-graduates and international students. These are Valco. Trust Hostel (for graduate students), International Students Hostel, (for both sexes). More than half of the students population do not benefit from residential facilities due to its large population size. There are residential facilities outside the campus that provide accommodation for students. Some of these are Evandy, Ages Abba and Kingdom Hostel Limited and Kings Hall Hostel. For each hall of residence, out of the number of resident students, only two thirds have accommodation (residential) on campus.

About three decades ago, there were a maximum of two students to a room. During those times, when a student asked his/her room mates to leave the room on the arrival of their sexual partners, the term “enachoro” was used. Today that practice still exists but the term used for the same purpose is “narrowing” or “narrow”. Due to the unbearable situation of overcrowding, students are using classrooms for sexual activity. (Source: key informants)

### **3.3 Variables**

The variables in this study have been categorized into demographic characteristics, behaviour factors, service- related factors, and social- cultural factors that influence contraception. The outcome variable is contraceptive use i.e, ever use of contraceptives. (Please refer to Appendix A, page 87 for table of variables)

### **3.4 Study Population and Unit**

Undergraduate students constituted the main study population. Others who were interviewed included selected heads of halls/hostels, block representatives, opinion leaders, dean of students and heads of reproductive health service providers.

### **3.5 Sampling**

Respondents were selected from all the five traditional halls of residence in addition to Jubilee hall on campus. For the off campus facilities, the hostels were selected within a 7 km radius off the main university premises. The seven kilometer radius was chosen to delimit the hostel facilities that are far away. The hostels on the north, west and east off the main premises were selected. These are: Evandy, Agges Abba and Kings hall Hostel

### **3.6 Sampling Method.**

#### **3.6.1 Sample size**

According to the Ghana Demographic and Health survey, (GDHS 2003) contraceptive prevalence for all methods is 25%. Using a worse acceptable prevalence of 21% with 95% CL for total undergraduate student population of 18,965, a sample size of 440 was

calculated using EPI INFO version 3.3.2. The sample size was approximated to 500 students to make room for eventualities but 507 respondents were selected.

For in-depth interviews, respondents were purposively chosen from amongst the University leadership, student leadership, and heads of health facilities. Those specifically interviewed were: the dean of students, SRC president, Head of COMBACEPH, head of family planning unit and head of reproductive health unit of the university hospital.

For focus group discussions, a total of 9 students were interviewed. Each student was a block/floor representative of the nine halls from which the students were selected. They were made up of 5 males and four females. The males were not separated from the females because getting at least eight male and female students each to interview was very difficult since the research was conducted during revision and examination period. This however did not affect the process since all the necessary information needed was obtained.

For the cross-sectional study, systematic sampling was employed. A list of individual student's population in nine halls of residents was obtained from the hall/hostel offices. The total number of rooms for undergraduate students in each of these halls was obtained. Through systematic sampling, rooms were selected. Randomly students were sampled within the selected rooms. The number of students that were selected from each hall/hostel depended upon the population of students in the hall in relation to the overall student population. Due to the 'in out out' policy of the University where about 90% of level 100 and 200 fresh students are given accommodation in the five traditional halls, level 200,300 and 400 continuing students were few in those halls. In order to ensure a

fair representation of students at all year of study, students were over sampled in specific halls when the need arose. The number of students to be interviewed in each hall was calculated using proportions as illustrated below:

**Example 1: Jubilee Hall**

**Calculating the no. of students to be selected from the hall**

For instance, undergraduate students population in the University = 18965.

The total number of undergraduate students in Jubilee Hall = 660. \* (sample size of 500)

**(number of undergraduate students in Jubilee Hall)**

**(Undergraduate students' population in the University)**

=  $\frac{660}{18965} * 500 = 17.6$ . i.e. approximately 18 students were supposed to be selected from Jubilee hall. There are 203 rooms in Jubilee Hall.

**Using systematic sampling to select rooms**

Sampling interval =  $\frac{203}{18} = 11.3 = 11$

This implies that, for every 11<sup>th</sup> room, one student was supposed to be selected and interviewed. Since students in Jubilee are level 300 and 400 students they were over sampled such that 49 students were interviewed from this hall using every 4<sup>th</sup> room as sampling interval

**Example 2 :Legon Hall.**

**Calculating the no. of students to be selected from the hall**

Undergraduate students population in the University = 18965.

The total number of undergraduate students in Legon Hall = 2357

Number of undergraduate students in Legon hall \* (sample size of 500)

(Undergraduate students' population in the University)

$$= \frac{(2357) * (500)}{(18965)} = 62 \text{ approximately} = 62 \text{ students}$$

**Using systematic sampling to select rooms**

Total number of rooms for undergraduates = 345

$$\begin{aligned} \text{Number of rooms to be selected} &= 345/62 \\ &= 5.5 \end{aligned}$$

$$\text{Approximately} = 6$$

This implies that, for every 6th room, one student was selected and interviewed.

This method would be used to select the students in the remaining seven halls until the sample size of 500 is obtained.

### **3.7 Data collection Techniques/ Methods & Tools**

#### **3.7.1 Recruitment and training of interviewers**

For data collection, 8 research assistants (RA) were recruited from among the students. They were trained in data collection; focus group discussion, in-depth interview and handling of tape recorder. Training manuals were also prepared and used to facilitate the training programme, this made it more effective.

A research instrument (structured questionnaire) was used to interview undergraduate students at all levels of study. These questionnaires were self-administered. The principal investigator chose this mode of questionnaire administration because of the high level of

literacy of students. For Focus Group Discussions, (FGD) guides were used, and interview guides were used for in-depth interviews.

### **3.8 Actual Data Collection**

The principal investigator conducted in-depth interviews among student leaders, Dean of Students, and Healthcare providers. Focus group discussion was conducted among students. The interviews were tape recorded. In all, a total of 537 students were approached to be interviewed and 507 responded. Those who could not avail themselves to be interviewed were either preparing to write a paper on the day they were approached or the following day. The students were cooperative even though some of the questions were personal. This could be attributed to the fact that the interviewers were trained and highly diplomatic and non-judgmental as they conducted interviews. All survey questions with inappropriate responses were re-administered to the respondents.

### **3.9 Quality Control**

All survey questions were checked manually by the principal investigator for completeness and consistency. Questionnaires with ambiguous responses were returned to the respondents for corrections.

Due to the nature of the questions, no questionnaire was left to a student for retrieval latter. The research assistants politely requested for them to move from the room to a neutral place where they were assured of privacy.

### **3.10 Data Processing and Analysis.**

#### **3.10.1 Statistical Methods**

##### **3.10.1.2 Quantitative Data**

All the questionnaire were coded and independently double entered into the computer by creating a field using EPI INFO version 3.3.2. Data cleaning was done by checking each questionnaire manually before entry. The data was then transported from the EPI INFO version 3.3.2 to SPSS. In SPSS the data was cleaned again to ensure that any questionnaire that was not well entered was corrected. Data was analyzed and presented using Descriptive statistics, Frequency distributions, Cross tabulations, Chi square and logistic regression. Tables, Pie charts, Bar charts, Histograms and text were used in writing the findings of the study.

##### **3.10.1.3 Qualitative Data**

Information obtained from the recorded Focus Group Discussions and in-depth interviews was transcribed verbatim. By the method of triangulation, consistencies and inconsistencies in responses were noted and explained using data from other techniques. Themes were also used to support information obtained from qualitative data.

### **3.11 Limitation of the Study**

The sample of size of 507 participants was too small for a University with a population of 18,965 undergraduate students. However due to time and financial constraints a larger sample size could not be used.

### **3.12 Ethical Clearance.**

For this study:

1. Approval was given by the Ghana Health Service Ethics Review Committee.
2. Approval was also sought at the institutional level through the School of Public Health.
3. The Department of Population, Family and Reproductive Health of the School of Public Health provided the principal investigator with written permission. Copies of this were sent to the management of all the hall/hostels selected for the study in order to seek their assistance cooperation.
4. The purpose and details of the study was explained to the respondent after which consent forms were given to be signed before answering the questions.
5. All respondents were assured of maximum confidentiality throughout the study.
6. All social norms and values were respected
7. Respondents who wanted to opt out were allowed to do so as and when they wanted.

### **3.12 Pre-testing.**

The data collection instruments together with the methodology were tested outside the study area by the research assistants. All necessary corrections were made finally before they were taken to the field for administration.

## CHAPTER FOUR

### 4. FINDINGS OF THE STUDY

#### 4.1 Background Characteristics of Respondents.

***Table 4.1*** Distribution of Respondents by Background Characteristics

<i>DEMOGRAPHIC CHARACTERISTICS</i>	<i>FREQUENCY</i>	<i>PERCENTAGES</i>
<b>AGE</b>		
15-19	38	7.5
20-24	416	82.1
25-29	43	8.5
30-54	10	2.0
<b>SEX</b>		
MALE	272	53.4
FEMALE	235	46.4
<b>MARITAL STATUS</b>		
SINGLE	494	97.4
MARRIED	13	2.6
<b>RELIGIOUS INCLINATION</b>		
CHRISTIANS	481	95.0
TRADITIONALISTS	21	4.1
OTHERS	5	0.9
<b>ETHNICITY</b>		
AKAN	286	56.4
EWE	101	19.9
DANGBE	63	12.4
OTHER	57	12.2
TOTAL	507	507

Table 4.1 shows the demographic characteristics of the respondents as:

#### 4.1.1 Age Distribution of Respondents.

A total of 507 male and female respondents were interviewed.

The age range was 15 – 54 years with a median age 30 years. Most of the respondents were aged 20-24 years 412 (82.1%).

#### 4.1.2 Sex Distribution of Respondents

Out of the 507 respondents that were interviewed, (54%) were males and 47% were females. This is consistent with the university admission statistics where the males outnumber the females.

#### 4.1.3 Marital Status of Respondents

Most (97.4%) of the respondents were single while 2.6% were married.

#### 4.1.4 Religious Inclination of Respondents

Majority (94.9 %) of the respondents were Christians with 4.1 % being Moslems and the remaining belonging to other religions. This is consistent with the national statistics where overwhelming majority of the population are Christians.

#### 4.1.5 Ethnicity of Respondents

The most predominant tribe was Akan, (56.4%) followed by Ewe (19.9 %) and Dangbe (12.4 %). The rest were a mixture of other tribes such as Hausa, Frafra, and Native America.

#### 4.1.6 Year/level of Study of Respondents

**Table 4. 2 Level/Year of Study of Respondents**

<i>LEVEL/YEAR</i>	<i>FREQUENCY</i>	<i>PERCENTAGE N= 507</i>
LEVEL 100 &200 FRESH	147	29
LEVEL 200 CONTINUING	108	21.3
LEVEL 300	110	21.7
LEVEL 400	142	28.0
TOTAL	507	100.0

The distributions of students according to their level of study were as follows: Level 100 and 200 fresh students, (29%); level 200 continuing (28%); level 300 (22%); and level 400 (21 %). Level 100 and 200 fresh students were combined because they had all been exposed to the university environment for the same period of time. Even though the “In, out, out” policy which governs the distribution of accommodation still operates in favour of level 100 students, respondents in level 200,300 and 400 were over sampled from the neighbouring hostels to get a fair distribution of students at all the levels.

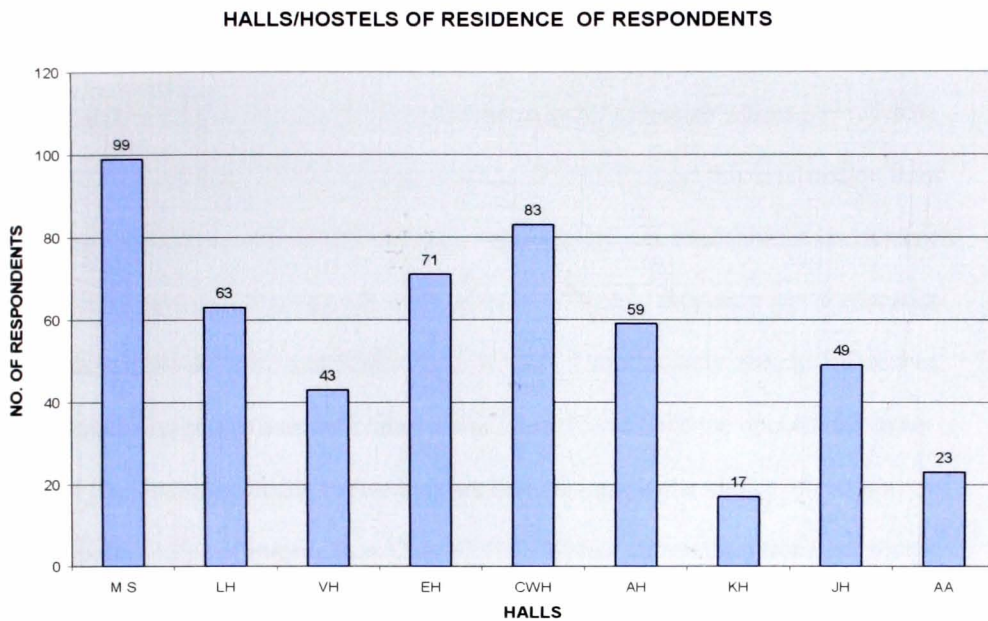
#### **4.17 Means of Financial Support of Respondents**

Majority 453 (89.3%) of the respondents are sponsored by their parents or guardians alone or augmented by loan schemes and scholarships. This is followed by 42 (8.3%) who are self sponsored and supported by loan schemes. Only 2(0.4) are those sponsored by their employers.

#### **4.1.8 Place of Dwelling of Respondents (Halls/Hostels)**

Figure 4.1 shows that, the hall with the highest number of respondents is Mensah Sarbah with 99 (19.5%) of respondents and Kings Hostel being the least with 17 (23%). The number of respondents for Commonwealth Hall (male hall) is about twice 83 (16.4) the number in Volta Hall (female hall), 43 (8.5 %). it should be noted that Evandy, Kings and Agges Abba hostels are privately owned and located outside the premises of the university.

**Figure 4.1** Place of Dwelling of Respondents



**KEY**

1. *MS: Mensah Sarbah Hall*
2. *LH: Legon Hall*
3. *VH: Volta Hall (Females only)*
4. *EH: Evandy Hostel*
5. *CWH: Common Wealth Hall (Males only)*
6. *AH: Akuafu Hall*
7. *KH: Kings Hostel*
8. *JH: Jubilee Hall*
9. *AA: Ages Abba Hostel*

## 4.2 Respondents' Level of knowledge of Contraceptives

### 4.2.1 Level of Awareness about contraceptives

All 507 (100%) of the respondents had ever heard about contraceptives.

### 4.2.2 Sources of Information about Contraceptives

Out of the 507 respondents, 467 (92.1%) get their information about contraceptives from TV/radio and 334 (65.9%) have the information from News papers whiles 359 (70.8%) are informed by friends. Of the 507 respondents, 332 (65.5%) get this information from books/text books with only 141 (27.8%) getting it through sex education programmes on campus. Twenty-nine out of the 507 respondents (5.7%) said they were given education on contraceptives at Junior and Senior High Schools. Unfortunately, the clinical setting (Family planning center/hospital/clinic) where students can have the opportunity to be assessed physically/medically before they are offered a particular choice of method was not a popular source of information. Only 97 (19.1%) had information from that source. This is evidenced by an in-depth interview with the head of Family Planning clinic at the University hospital. In the interview she said:

*'Students do not usually come here for our services, even if they come, they do not show their identity'.*

### 4.2.3 Respondents View on Side Effects of Contraceptives

As many as 381 (75.1%), out of the 507 respondents think that, contraceptives have side-effects. Those who think otherwise are 27(5.3%). However, 99(19.5%) are not certain. Table 4.3 shows respondents knowledge of methods, Uses, side effects and benefits of contraceptives.

#### **4.2.4 Knowledge of Various Contraceptives**

The respondents have much knowledge of the male condom (95.5%), female condom (83.4%), the pill (85.5%), vasectomy (66.9%) and withdrawal method (67.9%) They have least knowledge of herbs (4.1%) and sympto-thermal methods (5.1%).

#### **4.2.5 Respondents' knowledge on Uses of contraceptives.**

Out of the 507 respondents, 485(95.7%) knew that contraceptives could be used to prevent pregnancy. Three hundred and nine (60.9%) were able to identify contraceptives as being used to prevent reproductive tract infections and sexually transmitted infections including HIV/AIDS.

#### **4.2.6 Respondents' Knowledge of Symptoms of side effects of contraceptives.**

Nausea was identified by the respondents as the most common 169 (33.3%) side effect, followed by weight gain, 151 (29.8 %).Same number of respondent's i.e. 138(27.2%) in each case, mentioned spotting and minor headaches as side-effects. Only 30 (5.9 %) mentioned infertility as a side effect.

#### **4.2.7 Respondents' View of the Benefits of Contraceptives Outweighing the Side Effects.**

Two hundred and ninety seven out of the 424 (58.6%), respondents think that the benefits of contraceptives outweigh the side effects. Those who think otherwise are 52 (10.3%). Seventy-five 75(14.8%), are however not certain

#### **4.2.8 Respondents' Knowledge of Method(S) Used to Prevent Both Pregnancy and STD**

The students were asked to select the method(s) that could be used to prevent both pregnancy and STD. Out of the 507 respondents, 433(85.4%) were able to identify the male condom together with any other method. The female condom together with any

other method was selected by 366 (72.2%). The number who identified periodic abstinence only was 48 (9.5%). The pill only was selected by 26 (5.1%) vasectomy only, or diaphragm only, or foam tablets/jelly only, or IUD only was identified by the same number 9 (1.8%) of students. Norplant or Depo-Provera only was selected by almost the same proportion of students (i.e. 0.8 and 1.0% respectively). None, 0 (0%) of the respondents selected either sympto-thermal or herbs alone or in addition to any other method. Those who could not select male or female condom alone or in addition to another method are not likely to use it and therefore stand a higher risk of contracting STD.

**Table 4.3 Knowledge of Methods, Uses, Side effects and Benefits of Contraceptives**

<b>VARIOUS METHOD</b>	<b>KNOWLEDGE OF METHOD</b>	<b>PERCENTAGE S</b>
UD	217	42.8
pill	435	85.8
Diaphragm	221	43.6
foam tablets/jelly	265	52.3
male Condom	484	95.5
sympto-thermal	21	4.1
female condom	423	83.4
herbs	26	5.1
periodic abstinence	221	43.6
Norplant/Implants	100	19.7
injectable/Depo- provera	130	25.6
Vasectomy/MS	339	66.9
Female sterilization/BTL	171	33.7
Emergency contraceptive	192	37.9
Withdrawal method	334	67.9
Other	5.0	1.0
<b>USES OF CONTRACEPTIVES</b>	<b>KNOWLEDGE</b>	<b>PERCENTAGE N=507</b>
To prevent pregnancy	485	95.7
To end childbearing	144	28.4
To space children	298	58.8
To delay pregnancy	115	22.7
Prevent reproductive tract infections, STDs & HIV/AIDS	309	60.9
<b>SYMPTOMS OF SIDE EFFECTS</b>	<b>KNOWLEDGE</b>	<b>PERCENTAGE N=507</b>
Nausea	169	33.3
Vomiting	108	21.3
Spotting, (irregular bleeding)	138	27.2
Amenorrhoea /No periods/ No Menstruation	134	26.4
Minor headaches	138	27.2
Weight gain	151	29.8
Infertility	30	5.9
Other (specify)	53	10.5
<b>BENEFITS OF CONTRACEPTIVES OUTWEIGHING SIDE EFFECTS</b>	<b>NO- OF RECONDENTS</b>	<b>PERCENTAGE N = 424</b>
Benefits outweigh side effects	297	58.6
Benefits do not outweigh side effects	52	10.3
Don't know	75	14.8

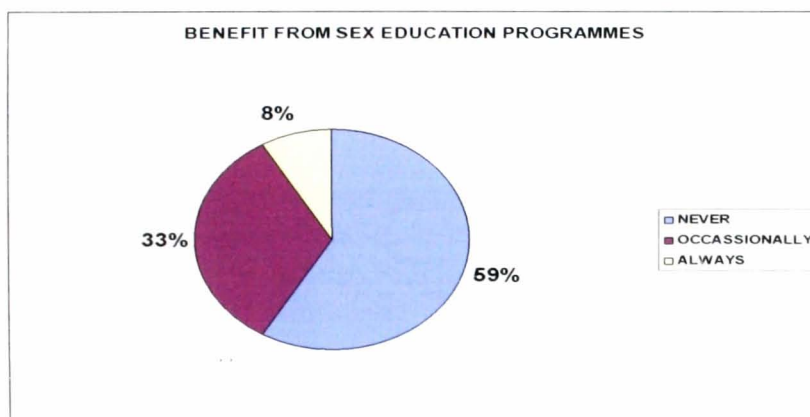
It should be remarked that Sum of percentages exceeds 100% because multiple responses were allowed.

### 4.3. Sexual behaviour

#### 4.3.1 Benefit From Sex Education Programs on Campus.

Figure 4.2 shows that, more than half 296 (58.4%) of the respondents have never benefited from sex education programmes on campus while 169 (33.3%) occasionally benefited. Only 42, (8.3%) always benefited from such programmes

**Figure 4.2** Benefits from Sex Education Programme



#### 4.3.2 Respondents Sources of Information about Sex

The most common source of information about sex 424 (83.6%) is the TV/Radio.

Friends 380 (75%) also contribute significantly in providing information on sex to respondents. News papers 307 (60.6%), text books/books 306 (60.4%) and Films/Drama 300 (59.2%) contribute in almost equal proportions in the provision of information to respondents. Parents 114 (22.5%) are not a major source of information to respondents about sex. The least popular source of information is the school curriculum constituting only 0.2%.

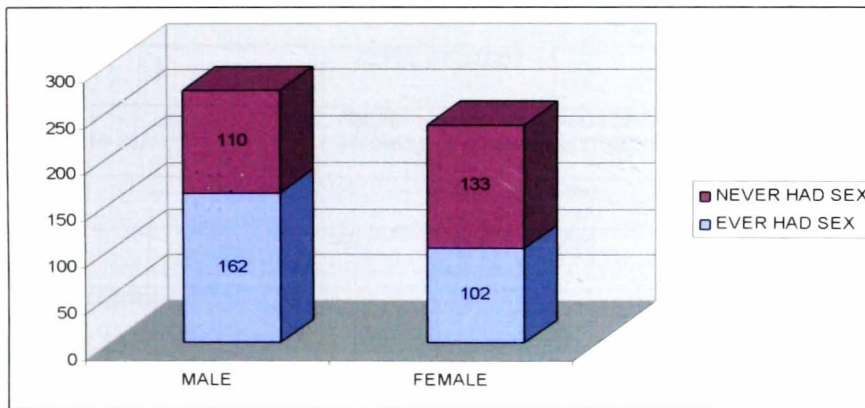
### 4.3.3 Respondents Who Have Ever Had Sex

More than half 264 (52%) of the respondents have ever had sex.

### 4.3.4 Age at First Sexual Experience

Out of the 264 respondents who have ever had sex, 234 (88.7%) were able to recollect their age at first sex while 30 (11.4%) were not able to do so. The mean age at first sexual experience was 18.7 years and the median age was 19 years. The mean age for males is 18.4 and 19.3 for the females. The earliest age at first sexual experience was 8 years with the oldest being 26 years.

**Figure 4.3** Ever had Sex by Sex of respondents



### 4.3.5 Sexual Experience by sex of respondents

Of the 264 respondents who have ever had sex, 162 (61.4%) are males and 102 (38.6%) females as shown in Figure 4.3.

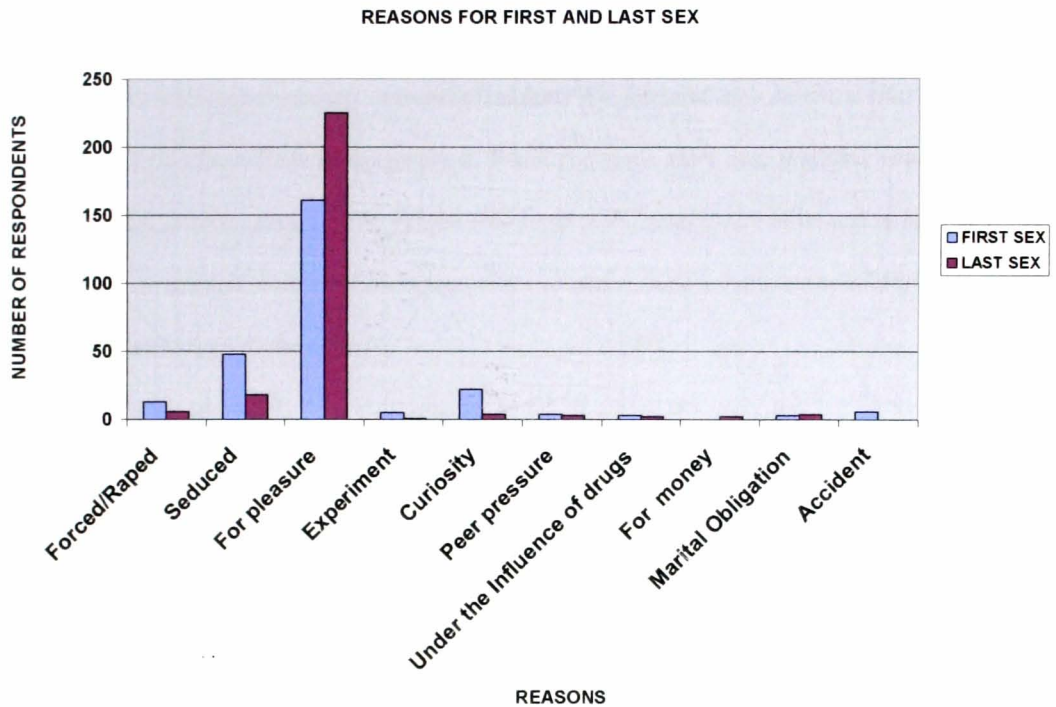
### 4.3.6 Cross Tabulation of Ever had Sex by Level of Study

A cross tabulation of ever had sex by level of year of study was done. The results are as shown in the table 4.4. As the respondents advance in their year of study, they tend to engage more in sexual activity. P-Value = 0.02 was obtained. This implies sexual experience is dependent on year of study,

It should be remarked that, Level 100 fresh and level 200 fresh as shown in the table were combined as fresh students after analysis because they had been exposed to the university environment for the same period of time.

**Table 4.4 Sexual Experience by Level of Study**

<i>EVER HAD SEX</i>	<i>LEVEL OF STUDY</i>				<i>TOTAL</i>
	<i>FRESH STUDENTS N = 147</i>		<i>CONTINUOUS STUDENTS N =360</i>		
YES	64	43.5	200	55.6	264
NO	83	56.5	160	44.4	243
PERCENTAGES		100		100	
TOTAL	147		360		507

**Figure 4.4** Reasons for First and Last Sexual Activity

#### 4.3.7 Reasons for First and Last Sexual Activity

From Figure 4.4, the respondents, 48 (18.2%), who had sex the first time due to seduction outnumber those who had sex the last time for the same reason i.e. 18 (6.8%). Similarly, respondents who had sex the first time by rape/force 13 (4.9%) and peer pressure 6 (2.3%) were more than those who had sex the last time for the same reasons, i.e. force/rape the last time 6 (2.3%). On the contrary, respondents who had their first sexual experience for pleasure were less 161(61%) than those who did so the last for the

same reason, i.e. 225 (82.2%). Even though the number of students who have sex due to peer pressure for both first and last sex is the not very high, the percentage is the same.

XThis means that some of the students are always under pressure from their colleagues.

More information about reasons for sex was obtained from Focus Group Discussion with students. Some of the views expressed by participants were as follows:

*“Sexual activities happen among university students for fun and also to show that you are the man. It is also a form of competition. When you have more sex, it means you are the true vandal. A true vandal is the person who fears nothing and can have sex so many rounds a day or a week. Others also engage in sex to show that they are matured and are moving from one stage to the other”.*

*“If you are in the university, you must engage in sex, it shows who you are.”*

*“Others also see it as a form of commitment in a relationship. I think others have sex due to over abundance of freedom because in SSS, we don't have much freedom. When we come to the university, we think this is the time I can explore, because my mum and dad are not around and the world is on my shoulders.”* *“In a relationship, the guys feel they are cheated if they do not have sex with the ladies because they spend all their resources on them. If we don't have sex with them, the ladies would tell their friends that 'after all, he got nothing from me. This would make the girls call us names like; 'constable', 'escorting girls for nothing...'"* *“When you are in certain groups and have certain kinds of friends, and every friend has a girlfriend or boyfriend, you will also have some”* *“when I was in level 200 we were six in the room and five friends were always engaging in sex with their girlfriends and one guy was afraid of having sex. When we were about*

*ending the last semester, the guy joined in having sex because majority of his mates were having sex with their girlfriends. The environment contributes a lot in sexual activity.”*

#### **4.3.8 Current Sexual Behaviour by Sex of Respondents**

Table 4.5 indicates the current sexual behaviour by sex of respondents

#### **4.3.9 Sexual Intercourse in the Last 30 Days**

Out of the 264 respondents who had ever had sex, 58 (22%) had sexual intercourse within the last 30 days of the interview. The number which did not have sex in that period of time were 204(77.3%), 6(2.3%) were uncertain about any sexual activity within the period under review. From Pearson Chi square test, there is a strong association between current sexual behaviour and sex of respondent since  $P\text{-Value} < 0.001$ .

#### **4.3.10 Frequency of sexual Activity by Sex of Respondents**

Similarly, frequency of sexual activity among the male respondents is more than the females.

However, the association between frequency of sexual activity and sex of respondent was not significant ( $P\text{-Value} = 0.366$ )

#### **4.3.11 Number of Sexual Partners by Sex**

Also, the male respondents have more sexual partners than the females their female counterparts. However, the association between number of sexual partners and sex of respondent is not significant.

**Table 4.5** Current Sexual Behaviour by sex of Respondents

		49	9	0	2	58			
	<b>WITHIN THE LAST 30 DAYS HAVE YOU HAD SEXUAL INTERCOURSE?</b>						<b>PEARSON</b>	<b>P-VALUE</b>	
	N= 264						<b>CHI-SQUARE</b>		
		<b>YES</b>	<b>NO</b>	<b>DON'T KNOW/ REMEMBER</b>	<b>TOTAL</b>		<b>17.285</b>	<b>0.001</b>	
<b>F</b>	<b>MALE</b>	37	126	4	167				
<b>ONDENTS</b>	<b>FEMALE</b>	21	78	2	101				
<b>L</b>		58	204	6	268				
	<b>DURING THE LAST 30 DAYS HOW OFTEN HAVE YOU HAD SEXUAL INTERCOURSE? N= 58</b>						<b>PEARSON</b>	<b>P-VALUE</b>	
							<b>CHI-SQUARE</b>		
		<b>3-5 TIMES PER WEEK</b>	<b>TWICE PER WEEK</b>	<b>ONCE PER WEEK</b>	<b>ONCE PER WEEKS 2</b>	<b>ONCE PER MONTH</b>	<b>TWICE PER MONTH.</b>	<b>6.539</b>	<b>0.366</b>
<b>OF</b>	<b>MALE</b>	4	8	11	4	8	3		
<b>ONDENTS</b>	<b>FEMALE</b>	4	2	4	4	4	2		
<b>AL</b>		8	10	15	8	12	5		
	<b>DURING THE PAST 30 DAYS HOW MANY PEOPLE HAVE YOU HAD SEX WITH? N= 58</b>						<b>PEARSON</b>	<b>P-VALUE</b>	
							<b>CHI-SQUARE</b>		
		<b>ONE</b>	<b>TWO</b>	<b>THREE</b>	<b>MORE THAN THREE</b>	<b>TOTAL NUMBER OF RESPONDENTS</b>	<b>OF</b>	<b>06.97</b>	<b>0.073</b>
<b>OF</b>	<b>MALES</b>	29	8	0	1	37			
<b>PONDENTS</b>	<b>FEMALE S</b>	18	1	0	1	21			

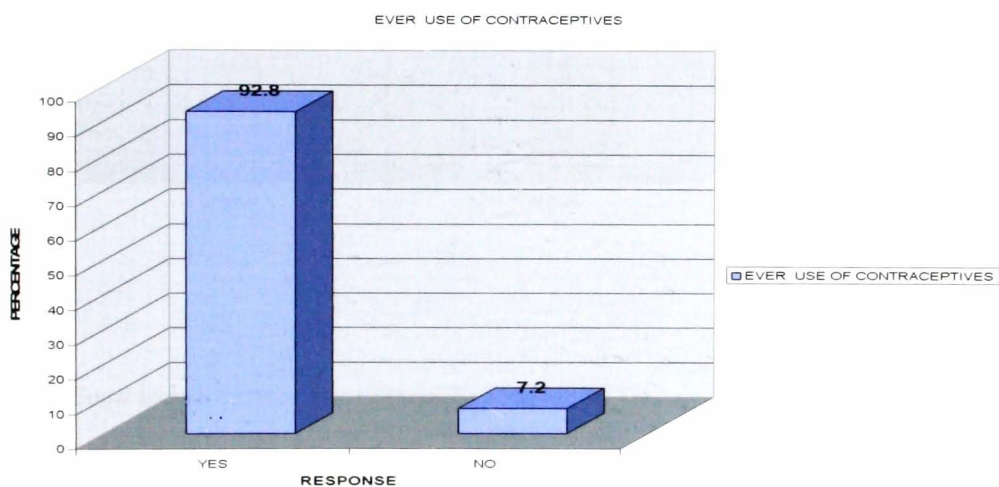
## 4.4. Contraceptive Use

### 4.4.1 Ever Use Of Contraceptives

From Figure 4.5, the students who have ever used contraceptives were 245 (92.8%)

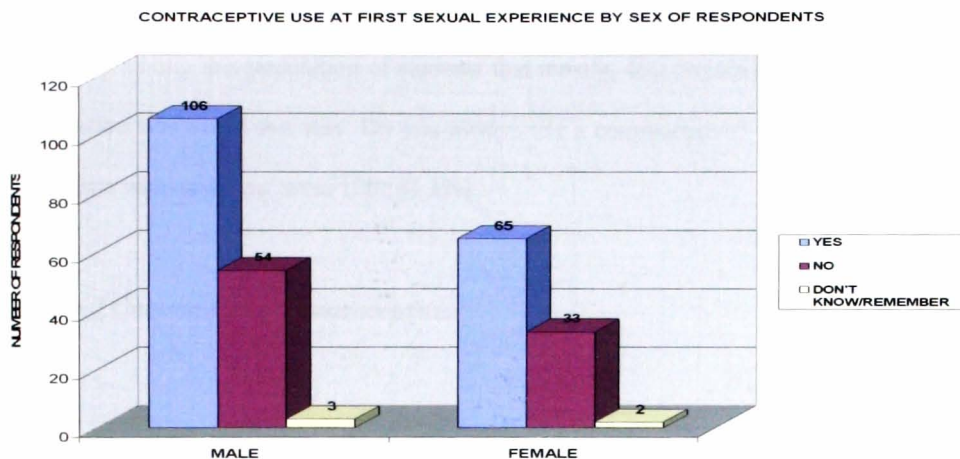
Whiles those who have never used it were 19 (7.2%).

**Figure 4.5** Ever Use of Contraceptives



### 4.4.2 Contraceptive Use at First Sexual Experience

Out of the 264 respondents who have ever had sex, 172 (65%) used contraceptives during their first sex. The number who did not use were 87 (33.0%) and 5 (2.0%) were uncertain. Chi-square test of association between ever use of contraceptives and benefit from sex education programmes on campus was statistically significant with a P-Value of 0.02.

**Figure 4.6** Contraceptive Uses at First Sexual Experience by Sex of Respondents

#### 4.4.3 Contraceptive Use at First Sexual Experience by Sex

Figure 4.6 indicates that, almost twice as many males, 106 (40.2%), as females, 65 (24.6%) used a contraceptive during their first sexual encounter. In a similar proportion, the males who did not use contraceptives during their first sexual encounter far outnumber their female counterparts who also did same.

#### 4.4.4 Contraceptives Use at Different Times

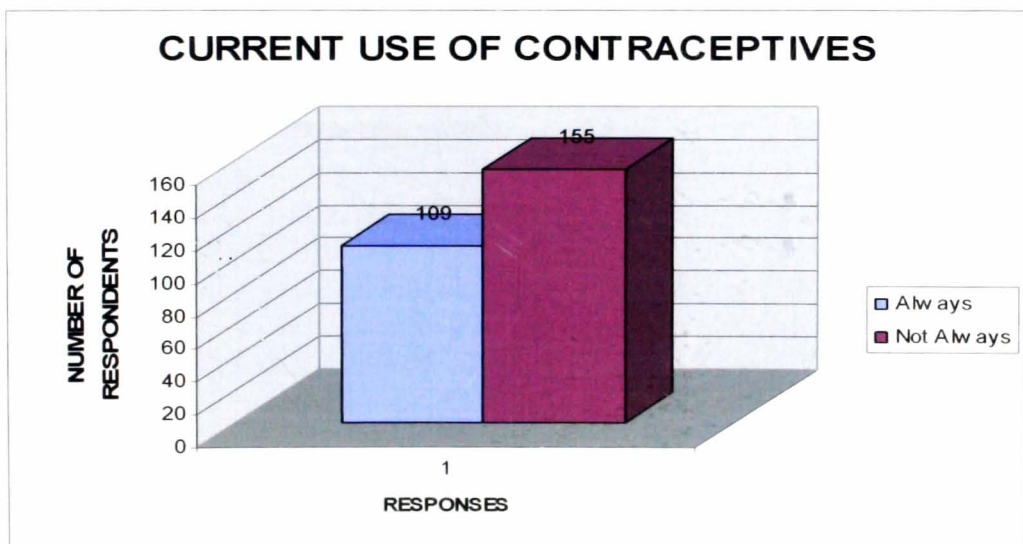
Students were asked if they used contraceptives anytime they had sex. Those who responded in the affirmative were 108 (41%), followed by the ones who use it sometimes 98 (37%). Almost the same proportions of respondents i.e. 7%, & 8% never, often or rarely used contraceptives.

#### 4.4.5 Current Use of Contraceptives

In this study, all-time users (always use) of contraceptives were used as a proxy for current users. This is because all-time use of contraceptives is a sign of good behaviour particularly among this population of students that mostly, 490 (96.6%) were unmarried.

The question was asked this way. Do you always use a contraceptive? From Figure 4.8 the students who said 'yes' were 109 (41.3%)

**Figure 4.7** Current Use of Contraceptives



#### 4.4.6 Methods of Contraceptives Used During First Sexual Experience.

Of the 171 respondents who used condom during their first sexual experience, the following methods were used: The male condom only was used by 150 (87.7%).

Those who used withdrawal method only were 8 (4.7%). Those who used both the pill and male condom were 5 (2.9%). The pill only was used by 4 (2.3%) of them. Two (1.2%) used both female condom and foam tablets and periodic abstinence only by another 2 (1.2%)

#### **4.4.7 Cross Tabulations of Contraceptive use by Sex of Respondents**

From table 4.5 although there seemed to be some association between the various degrees to which contraceptives were being used and the sex of respondents (P-value < 0.001 at 95% confidence level) no significant association was found between all-time usage and the sex of the respondents (since the P-Value > 0.05). However, use of contraceptives at first sexual experience was found to be dependent on the sex of the respondent, with male predominance value < 0.002). Likewise, having ever used a contraceptive is dependent on the sex of the respondent (p-value <0.002).

**Table 4.6** Contraceptive Use by Sex of Respondents

		DID YOU USE ANY CONTRACEPTIVE METHOD THE FIRST TIME YOU HAD SEX?						ACTUAL VALUE	P-VALUE
NO. OF RESPONDENTS	YES	NO	DON'T KNOW	TOTAL	PEARSON-CHI-SQUARE		15.251	0.002	
FEMALE	106	54	3	109	LIKELIHOOD RATIO		15.321	0.002	
MALE	65	33	2	135					
TOTAL	171	87	5	244					
		DO YOU ALWAYS USE A CONTRACEPTIVE WHEN EVER YOU HAVE SEX? (ALL TIME USERS)							
NO. OF RESPONDENTS	ALWAYS	NOT ALWAYS	DON'T KNOW	TOTAL	PEARSON CHI-SQUARE		0.032	0.857	
FEMALE	68	95	0	163	LIKELIHOOD RATIO		0.033	0.957	
MALE	41	60	0	101					
TOTAL	109	155	0	264					
		DO YOU ALWAYS USE A CONTRACEPTIVE METHOD WHEN EVER YOU HAVE SEX?							
NO. OF RESPONDENTS	SOMETIMES	OFTEN	ALWAYS	RARELY	NEVER	TOTAL	PEARSON-CHI-SQUARE	21.714	0.001
FEMALE	63	15	68	10	7	109	LIKELIHOOD RATIO	22.053	0.001
MALES	34	5	41	9	12				
		HAVE YOU EVER USED A CONTRACEPTIVE?							
NO. OF RESPONDENTS	YES	NO	TOTAL			PEARSON-CHI-SQUARE		5.434	0.020
FEMALE	158	5	163			LIKELIHOOD RATIO		5.254	0.022
MALE	91	10	101						
TOTAL	249	15	264						



#### **4.4.8 Respondents who have ever been Pregnant.**

The question was asked this way, have you or you partners ever been pregnant? Forty-two (15.9%) out of the 264 respondent have ever been pregnant.

#### **4.4.9 Respondents who have ever had an Abortion**

Out of the 42 (15.9%) respondents who have ever been pregnant, 28 (66.7%) admitted that they had ever had an abortion.

#### **4.4.10 Pregnancy and Abortion by Year of Study.**

Table 4.7 shows that, as students progress in their year of study, the frequency of pregnancy increases. There is a strong association between level of study and ever been pregnant (p-value=0.02). Likewise, there is an association between level of study and the number of times students or their partners have ever been pregnant (p-value=0.04).

#### **4.4.11 How and Where Abortions Occur**

Three quarters 21(75%) of the respondents had abortions at a health centre/or hospital. Those who bought drugs from drug shops were 6 (21.4%) and only one (3.6%) went to a maternity home. It is important to note that, students start with induced abortion and report to the hospital with complications. This is confirmed by an in-depth interview with Head of Reproductive Health Unit of UG hospital, who stated that:

*“Students do not report with unintended pregnancies, they rather report after they have induced abortion and are bleeding or having other complications. So we provide them with post abortion care. We don't provide comprehensive abortion care for students with unintended pregnancies”.*

**Table 4.7** Pregnancy and Abortion by Year of Study

		HAVE YOU OR YOUR PARTNER (S) EVER BEEN PREGNANT N=264						
		YES	NO	DON'T KNOW	TOTAL	PEARSON CHI -SQAURE	P-VALUE	
LEVEL/ YEAR OF STUDY	FRESH STUDENTS	7	62	1	70	9.528	0.023	
	CONTINUING STUDENTS	35	159	0	194			
TOTAL		42	221	1	264			
2		IF YES, HOW MANY TIMES HAVE YOU OR YOUR PARTNER (S) BEEN PREGNANT N = 42					PEARSON CHI SQUARE	P-VALUE
LEVEL/ YEAR OF STUDY		ONCE	TWICE	THRICE	MORE THAN THREE TIMES	TOTAL	5.089	0.037
	FRESH STUDENTS	6	1			7		
	CONTINUING SUDENTS	25	4	4	2	35		
TOTAL		31	5	4	2	42		
3		HAVE YOU OR YOUR PARTNER (S) EVER ABORTED A PREGNANCY N= 28					PEARSON CHI SQUARE	P-VALUE
LEVEL/ YEAR OF STUDY		YES	NO				2.921	0.232
	FRESH SUDENTS	5	3					
	CONTINUING STUDENTS	23	11					
TOTAL		28	14					
4		IF YES, HOW MANY TIMES HAVE YOU OR YOUR PARTNER(S) EVER TRIED AN ABORTIONS N=28						
LEVEL/ YEAR OF STUDY		ONCE	TWICE	THRICE	MORE THAN THREE TIMES	TOTAL	PEARSON CHI-SQUARE	P-VALUE
	FRESH SUDENTS	5				6	3.405	0.493
	CONTINUING STUDENTS	17	4	1	1	23		
TOTAL		22	4	1	1	28		

## 4.5. Place for Sexual Activity

### 4.5.1 Where Sexual Activity Takes place

From Table 4.8, majority of students 200 (81.3%) have sex outside campus during the semester. Only 42(17.1%) did so on campus. A small number 4 (1.6%) engaged in sex both on an off campus.

**Table 4.8 Place for Sexual Activity**

<i>PLACE FOR SEXUAL ACTIVITY</i>	<i>FREQUENCY</i>	<i>PERCENTAGE</i> <i>BASE = (246)</i>
ON CAMPUS	42	17.1
OFF CAMPUS	200	81.3
ON AND OFF CAMPUS	4	1.6

In a focus group discussion involving floor representatives, a participant stated:

*“The students have sex on campus are very a few. It is only those who are not shy and do not have any dignity who do so. Those who are “chrife” usually refrain from such behaviours”*

### 4.5.2 Sexual activity in rooms

Of the 42 respondents who have sex on campus, 22 (52.4%) have sex in their rooms. Those who have sex in their rooms either use the inner rooms or “narrow” (excuse their room mates) so that they can use the outer room.

The male participants in the FGD said that:

*‘The guys excuse the girls a lot. Sometimes, the room mates remain adamant but still the game must go on. Sometimes, it is not fair but when you see that a guy and a lady are entering a room we just excuse them. We would be there and this guy will bring a lady to*

*the room and they would be doing their own thing in front of us, and we don't care too much if it's wrong or right. When I was in level 100, my room mates usually brought girls into the room and they do their own thing. The guys never feel shy with issues of sexuality, they feel is normal'*

The female participant said:

*"People also have sex even when their room mates are around. I personally witnessed a situation when we were in level 400. My room mate brought her boyfriend into the room and they were doing their own thing. It was an outer room; there was neither a fence nor any form of privacy. All other students were in the room. The situation was like if you want to watch, then watch. Since they are old enough and knew what they were about and did not feel shy doing it in our presence, why should we also feel shy looking at it. Even though we were all against it, I was not truly bothered. Everybody heard about it on the floor because some level 400 girls reported her; we were all sacked from the room. She was sacked from the floor and made a non-resident student"*

Another participant stated

*"In the all female halls, I don't think people have sex in their rooms because they are afraid. I have not heard of a situation where students have sex in their rooms. They normally go to their boyfriends because the boys are more tolerant to such behaviour"*

Those who do not have sex in their rooms do so at various places within and around the university campus. These other places around the University include sports field, in cars, guest houses and hotels.

One participant also said:

*"Students who have sex outside their rooms do it; mostly in their cars, on the park, in*

*class rooms; math's department, in the dinning rooms in the bush and at the beach during beach parties and.... "*

*"I witnessed it myself at the athletic oval where the partners were doing their own thing"*

Also in an in depth interview with dean of students he lamented:

*"It is very embarrassing that, people do not respect our female students anymore. Sometimes, these female students are seen by patrol attendants in the night where men have sex with them behind and around mobile shops"*

### **4.5.3 Students Perception about Sex on Campus**

All students who have ever had sex were asked if they are or would be able to engage in sexual activities conveniently on campus or not. Those who responded in the affirmative were 36 (13.6%) whilst 209 (79.2%) did not. Those that were not certain were 19(7.2 %). This is as shown in the table 4.9

**Table 4.9 Students Perception about Sex on Campus**

<i>STUDENTS' PERCEPTION ABOUT SEXUAL ACTIVITY ON CAMPUS</i>	<i>FREQUENCY</i>	<i>PERCENTAGE BASE= 264</i>
CONVENIENT	36	13.6%
NOT CONVENIENT	209	79.2%
DON'T KNOW	19	7.2 %

### **4.5.4 Reasons why some students do not have sex on campus.**

Students were further asked to give reasons why they think sexual activity on campus is not convenient. The results are as shown in table 4.10 Most 162 (60.7%) respondents gave the reason that they did not have sex on campus due to lack of privacy. This number; 36 (15.9%) thought that, it was not comfortable or convenient. Almost the same number 10 (4.4 %) and 9(4.0%) had either partners off campus or thought it was

unethical. Exactly the same numbers 5(2.2%) thought either it was not right to have sex on campus or needed time to study.

**Table 4.10 Reasons Why some Students Do Not Have Sex on Campus**

<i>REASONS WHY SOME STUDENTS DO NOT HAVE SEX ON CAMPUS</i>	<i>FREQUENCY</i>	<i>PERCENTAGE BASE =( 227)</i>
NO PRIVACY/ NOT COMFORTABLE	198	87.2
UNETHICAL/NOT RIGHT	14	6.2
PARTNER OFF CAMPUS	10	4.4
NEED MORE TIME TO STUDY	5	2.2
TOTAL	229	100

#### **4.5.5 Results of Lack of Privacy on Campus**

##### **4.5.5.1 Sexual Activity in Town;**

Students who go to town to have sex were 120 (45.5 %). Those who were not doing so were 115 (43.6%) and 29 (11%) were not certain.

From in-depth interview of Dean of students in-depth interview, He stated:

*“But I also have lots of reports in the hostels, in fact whereby not just only the sexual activity on campus but also what occurs in the neighboring hostels because. I had the opportunity to observe vehicles that come to pick the girls out, is amazing and we don't have any control over them, even those within, definitely not unless there is a reason for a lot of sexual or moral degradation that is visible you cannot do much because of their age.”*

#### **4.5.5.2 Multiple sexual partners;**

Students who have multiple sexual partners on and off campus due to lack of privacy in rooms were 88 (33.3%) while 160 (60.6%) did not have and 16 (6.1%) were not certain.

#### **4.5.5.3 Older Sexual Partners on and off campus;**

About a quarter 63 (23.9%) of students have older partners with whom they have sex on and off campus. 173 (65.5%) did not have such partners, a small number (8.7%) were not certain.

#### **4.5.6 Creating a Better Environment for Privacy**

Respondents were asked if authorities should create a better environment for privacy.

Those who responded in the affirmative were 130 (49.2%). Those who were not certain were 10 (3.8%). However, 124 did not think there was any need

Asked in FGD whether the authorities should create a better environment for privacy, one participant in made this responded:

*“I think the authorities must create a better environment for privacy because at a certain age, sometimes you just feel like being alone even if you do not want to have sex but the situation in the school does not allow us to have that private life. Even if you want to go out of your room to any place for some quietness you do not get because there are not enough benches around the school to sit on and relax”.*

#### **4.5.7 Proposed Ideal Occupancy per Room**

Due to the lack of privacy on campus students were asked if the authorities should create a better environment for privacy. Those who responded in the affirmative were 130 (49.2%). Those who were not certain were 10 (3.8%). However, 124 (47.1%) did not think there was any need.

## 4.6 Awareness, Identification of Symptoms and Infections with STDs

***Table 4.11*** Awareness, Identification of Symptoms and Infections with STDs

<b>AWARENESS ABOUT SEXUALLY TRANSMITTED DISEASE</b>	<b>FREQUENCY</b>	<b>PERCENTAGES BASE = 507</b>
YES	474	93.5
NO	33	6.5
<b>IDENTIFICATION OF SYMPTOMS OF STD'S</b>	<b>FREQUENCY</b>	<b>PERCENTAGES BASE = 507</b>
RIGHT IDENTIFICATION	171	33.7
PARTIAL IDENTIFICATION	310	61.1
NO IDENTIFICATION	26	5.1
<b>EVER HAD SEXUALLY TRANSMITTED DISEASES.</b>	<b>FREQUENCY</b>	<b>PERCENTAGES BASE = 507</b>
YES	14	5.3
NO	238	90.2
DON'T KNOW	12	4.5
<b>ABNORMAL DISCHARGE FROM VAGINA OR PENIS</b>	<b>FREQUENCY</b>	<b>PERCENTAGES BASE = 507</b>
YES	28	10.6
NO	229	86.7
DON'T KNOW	7	2.7
<b>ULCER ON OR NEAR THE VAGINA OR PENIS WITHIN THE LAST 12 MONTHS</b>	<b>FREQUENCY</b>	<b>PERCENTAGES BASE = (264)</b>
YES	6	2.3
NO	256	96.7
DON'T KNOW/REMEMBER	2	0.8

Table 4.11 gives a summary of the respondent's ability to identify STDs.

### 4.6.1 Awareness of STDs

From table 4.11 out of the 507 respondents, an overwhelming majority of 474 (93.5 %) are aware of sexually transmitted infections. The remaining 33 (6.5%) have never heard about STD's.

### 4.6.2 Identification of symptoms of STDs

The students who rightly identified symptoms were 171(33.7%) followed by 310 (61.1%) who did partial identification. A small number 26 (5.1%) could not do any identification.

#### **4.6.3 Proportion of Sexually Active Students who have ever had STDs**

Even though 238 (90.2 %) have never had sexually transmitted infections, 14 (5.3%) have ever been infected. Twelve (4.5%) were not certain. Other possible symptoms of STD's that respondents were interviewed about were abnormal discharge from the vagina and ulcer on or near the vagina or penis. About, 28 (10.4%) and 6 (2.3%) have ever had the above mentioned. From an In-depth Interview with Head of Reproductive Health Unit, he was asked if students report early and bring their partners for treatment:

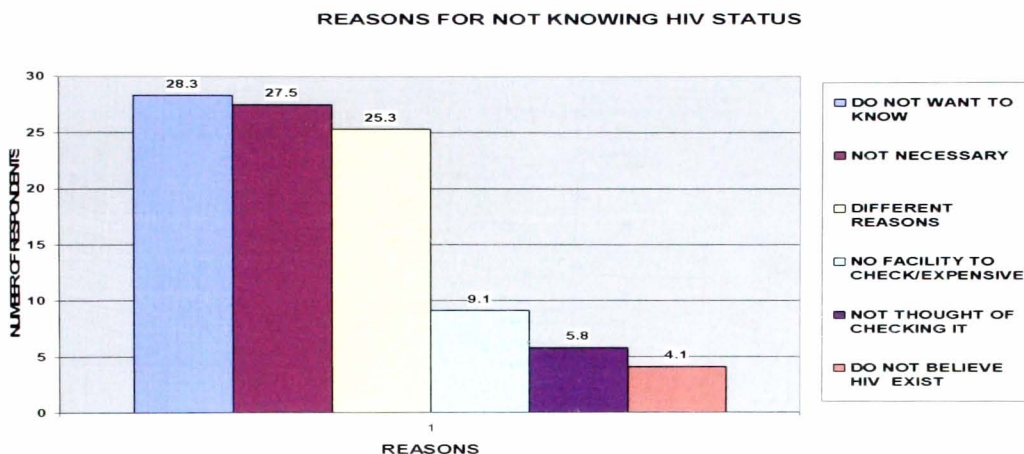
*“Students usually report when they have complications including PID, they do not bring their partners for treatment so we provide them with prescriptions for their partners as well”*

#### **4.6.4 Decision taken Upon Having Symptoms of STD's**

Various decisions were taken by students upon having symptoms of STD. These included going for treatment at the hospital or clinic 25 (89.3%), asking for advice from friends 1 (3.6%) and buying drugs from the pharmacy 2 (7.1%).

#### **4.6.5 Respondents Knowledge of their HIV status.**

An overwhelming majority 361(71%) of the respondents were not aware of their HIV status. Those who were aware were 146 (29%). Those who did not know their status had these reasons. From Figure 4.9 one hundred and three respondents (28.5%) just did not want to know and 99 (27.5%) did not see the need whiles 81(25.3%) had a mixture of reasons. Respondents who were not ready to check were 21 (5.8 %) do not believe in the existence of HIV/AIDS.

**Figure 4. 8** Reasons for not Knowing HIV Status

#### 4.6.6 Age at First sex and Current Sexual Behaviour by Ever had STDs

Table 4.12 shows cross tabulations of current sexual behaviour and age at first sexual experience by STDs. From the Pearson Chi-square test, ever had sexually transmitted disease by sexual intercourse in the last 30 days, number of sexual partners, and frequency of sexual intercourse have p-value < 0.00, except age at first sexual experience that has a weak association i.e. P-Value of 0.21. This means that ever had STD is dependent on frequency of sexual activity, number of sexual partners and current sexual behaviour except age at first sexual experience.

**TABLE 4.12** Current Sexual Behaviour by Ever had STD

IF YES, HOW OLD WERE YOU WHEN YOU FIRST HAD N= 200 SEXUAL INTERCOURSE									
		YES	NO	TOTAL			PEARSON CHI-SQUARE		P-VALUE
HAVE YOU EVER HAD A SEXUALLY TRANSMITTED DISEASE	YES	10		10			4.540		0.209
	NO	177	23	200					
WITHIN THE LAST 30 DAYS HAVE YOU HAD SEXUAL INTERCOURSE? N= 237									
HAVE YOU EVER HAD A SEXUALLY TRANSMITTED DISEASE		YES	NO	DON'T KNOW/ REMEMBER	TOTAL		PEARSON CHI-SQUARE		P-VALUE
	YES	5	6		11		408.909		.000
	NO	44	176	6	226				
TOTAL		49	182	6	237				
DURING THE PAST 30 DAYS HOW MANY PEOPLE HAVE YOU HAD SEX WITH N= 58									
HAVE YOU EVER HAD A SEXUALLY TRANSMITTED DISEASE		ONE	TWO	MORE THAN THREE	TOTAL		PEARSON CHI-SQUARE		P-VALUE
	YES	3	1	0	4		56.588		0.000
	NO	36	5	1	42				
	DON'T KNOW	5	1		6				
	TOTAL	4	1	1	6				
		48	8	2	58				
DURING THE LAST 30 DAYS HOW OFTEN HAVE YOU HAD SEXUAL INTERCOURSE? N= 53									
HAVE YOU EVER HAD A SEXUALLY TRANSMITTED DISEASE		3-5 PER WK	2* PER WK	1* PER WK	1* PER 2 WK	1*PER MTH	1* PER 2 MTHS	P-VALUE	
	YES		1	1	1		1	4.000	
	NO	6	8	10	7	10	2	43	
	DON'T KNOW	2		2		1	1	6	
TOTAL		8	9	13	8	11	4	53	

**Table 4.13 Sexual Activities, Level of Study and Contraceptive use by Identification****of Symptoms and ever had STD**

		DID YOU USE ANY CONTRACEPTIVE METHOD THE FIRST TIME YOU HAD SEX? N= 236						
		YES	NO	DON'T REMEMBER	TOTAL	PEARSON CHI-SQUARE	P-VALUE	
DID YOU EVER HAVE A SEXUALLY TRANSMITTED DISEASE	YES	8	3	-	11	413.592	0.00	
	NO	147	75	3	225			
TOTAL		155	78	3	236			
		AT WHAT LEVEL ARE YOU STUDYING NOW? N= 242						
		1 <sup>ST</sup> YEAR	2 <sup>ND</sup> YEAR	3 <sup>RD</sup> YEAR	4 <sup>TH</sup> YEAR	TOTAL	PEARSON CHI-SQUARE	P-VALUE
DID YOU EVER HAVE A SEXUALLY TRANSMITTED DISEASE	YES	2	6	-	6	8	726.648	.0002
	NO	57	40	58		234		
	DK	5	1	1	5	242		
		DID YOU USE ANY CONTRACEPTIVE METHOD WHEN YOU HAD SEX? N = 249						
		SOMETIMES	OFTEN	ALWAYS	RARELY	NEVER	TOTAL	P-VALUE
DID YOU EVER HAVE A SEXUALLY TRANSMITTED DISEASE	YES	8	1	2	-	-	11	0.000
	NO	77	18	96	19	16	226	
	DON'T KNOW	6	-	6	-	-	12	
TOTAL			19	104	19	16	249	
		HAVE YOU EVER USED A CONTRACEPTIVE? N= 258						
		YES	NO	TOTAL	PEARSON CHI-SQUARE	P-VALUE		
IDENTIFICATION OF SYMPTOMS OF STDs	RIGHT IDENTIFICATION	91	6	97	13.82	0.008		
	PARTIAL IDENTIFICATION	132	19	151				
	NO IDENTIFICATION	6	4	10				
TOTAL		229	25	258				

#### 4.6.7 Sexual activity, Level of Study and Contraceptive use by ever had STD

Table 4.13 shows that, having ever had sexually transmitted infection is associated with whether or not one has ever used a contraceptive, level of study and consistency or otherwise in the use of contraceptives (P-Value < 0.00, 0.002 and 0.00 respectively).

#### 4.7 Accessibility, Availability and Affordability of Contraceptives

##### 4.7.1 Where students buy contraceptives from

Table 4.20 indicates that, students buy contraceptives from numerous places but the most common places were pharmacies outside campus 169(40.1 %).The pharmacy on campus and COMBACEPH was patronized by 72 ( 27.3%) and family planning / health centre/ clinic which serve as a more reliable sources of service delivery was used by only 31 (11.4%) . Those who have never bought any were 56(21.2%).

**Table 4.14 Accessibility, Availability and Affordability of Contraceptive**

<i>WHERE STUDENTS BUY CONTRACEPTIVES FROM</i>	<i>FREQUENCY</i>	<i>PERCENTAGES BASE = 264</i>
UG HOSPITAL	57	21.6
PHARMACY OUTSIDES CAMPUS	169	40.1
FAMILY PLANNING / HEALTH CENTRE/ CLINIC/MATERNITY HOME	31	11.4
PHARMACY ON CAMPUS/ ( COMBACEPH)	72	27.3
NEVER BOUGHT / OTHER PLACES	56 12	21.2 4.5
<b>ACCESS TO CONTRACEPTIVES FROM HALL/HOSTEL</b>	<b>FREQUENCY</b>	<b>PERCENTAGE BASE = (264)</b>
ACCESSIBLE	135	51.1
NOT ACCESSIBLE	59	22.3
DON'T KNOW	14	5.3
NEVER BOUGHT	56	21.2
<b>AFFORDABILITY OF CONTRACEPTIVES</b>	<b>FREQUENCY</b>	<b>PERCENTAGE BASE = (264)</b>
AFFORDABLE	201	76
NOT AFFORDABLE	8	3
NEVER BOUGHT	55	21

#### **4.7.2 Access to Contraceptives from Hall/Hostel**

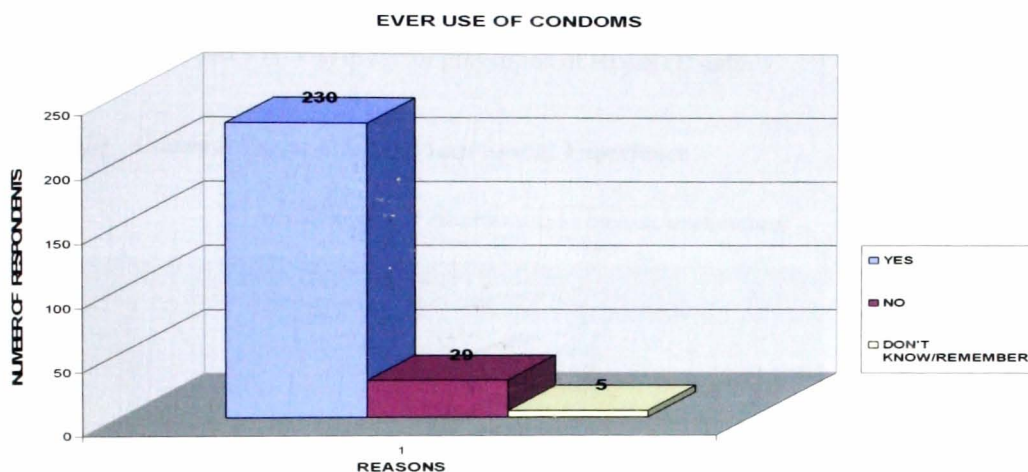
Table 4.14 shows views of students about accessibility of contraceptives from their various halls/hostels. A little over half 135 (51.1%) responded that the distance from where they reside to the place where they can get contraceptives is not too far. Those with opposing views were 59 (22.3%). A few 14 (5.3%) were not certain while 56 (21.2%) have never bought contraceptives.

#### **4.7.3 Affordability of Contraceptives**

Majority (76%) of respondents admitted that contraceptives were affordable and those who had never bought contraceptives were 21%, only 3% thought it was not affordable.

## 4.8 Frequency of Condom Use

**Figure 4.9** Ever use of Condoms



### 4.8.1 Ever use of Condoms

This question was restricted to students who had ever had sex. Respondents were asked if they have ever used condoms. The number that responded in the affirmative was 230 (87.2%). With reference to figure 4.10, a little less than one eighth 29 (11.0%) have never done so whereas 5 (1.90%) were uncertain.

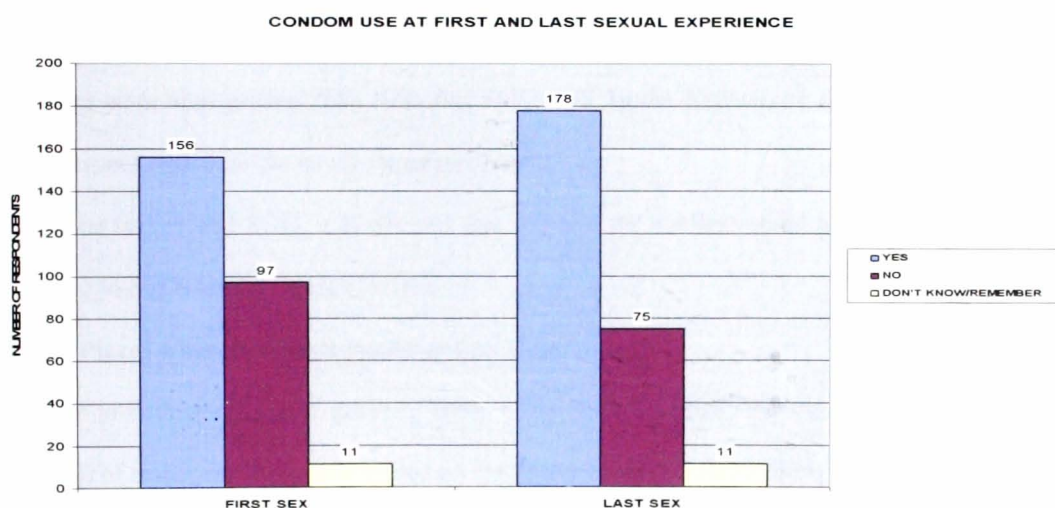
### 4.8.2 Reasons for non- Use of Condoms

Of those who have never used a condom, about half 15 (46.9%) explained that they trust their partners. A little over half 7(21.9%) alluded to the fact that, their partners did not request for it. Six (18.8%) wrote '*we don't like it because it reduces pleasure*'. An equal number 1 (3.1%) of respondents either requested but partner refused or partner requested but they refused. The remaining 2(6.2%) were of other views.

### 4.8.3 Reasons why Respondents Use Condoms

Students who have ever used or continue to use condoms have the following explanations to give. An overwhelming majority 191 (83%) use condoms for dual protection i.e. to prevent pregnancy and sexually transmitted infections, 32 (13. %) use it for prevention of pregnancy only and just 3 (1.3%) use it for prevention of HIV/STD only.

**Figure 4.10** Condom Use at First and Last Sexual Experience



### 4.8.4 Condom Use at First and Last Sexual Experience

The frequency of condom use at first and last sexual experience of respondents before the interview was determined. The following were the results. From Figure 4.11 whiles condom use at first sex was 156 (67.8%), 178 (77.4%) used it during their last sexual intercourse. This is consistent with GDHS results where contraceptive use at first sexual experience is lower than that of immediate ones before interviews. Equal number

at first sex is 18.7 while the mean age at first condom use is 19.6 years. The minimum age at first condom is 13 years however; the minimum age at first sex is 8 years.

#### **4.8.5 Ability to Use Condoms throughout Sexual intercourse**

Of the 230 respondents who have ever used a condom, 167(72.6%) are able to use it throughout the sexual act. On the contrary, 27(11.7%) are not able to do so. Those who sometimes use condoms throughout sexual act are 36(13.3%).

In a focus group discussion (FGD) students were asked whether they used condom all the time throughout sexual intercourse. They responded:

*‘Ei ! no, Some students are afraid of getting pregnant or impregnating their sexual partners more than getting STDs including HIV/AIDS so the condom use throughout sex is sometimes only with the newly found girlfriends’*

From the survey and FGD, it is obvious that some of the students stand a risk of being exposed to STDs including HIV/AIDS.

#### **4.8.6 Places where Students Prefer to Buy Condoms**

Similar to contraceptives in general, Table 4.14 indicates that, the same number 169 (60.4%) of respondents who purchased contraceptives outside campus bought condoms at those same places. However, fewer students bought condoms from the University hospital.

#### **4.8.7 Geographical Access to Condom Sale Points from hall/hostel.**

The respondents were asked to comment on the distance from the hall/hostel to a place where they could buy condoms. Little over half were of the view that the distance was not far. Only a few (9%) admitted they were not certain. About half of those who said the distance is not far were of contrary opinion.

#### 4.8.8 Affordability of Condoms

Of the 230 respondents who have ever used a condom, 187 (81.3%) were able to afford it all the time while 17(7.4) were not able to do so. 26 (11.3%) were uncertain. The average cost of a pack of condom was Gh c2.5.

**Table 4.15 Accessibility, Availability and Affordability of Condoms**

<b>PLACES WHERE STUDENTS BUY CONDOMS</b>	<b>FREQUENCY</b>	<b>PERCENTAGES N =230</b>
IG HOSPITAL/COMBACEPH	8	3.5
PHARMACY OUTSIDES CAMPUS	169	60.4
FAMILY PLANNING / HEALTH CENTRE/ CLINIC/MATERNITY HOME	28	12.2
OTHER PLACES	43	18.7
<b>GEOGRAPHICAL ACCESS TO CONDOM SALE POINTS FROM HALL/HOSTEL</b>	<b>FREQUENCY</b>	<b>PERCENTAGE BASE= 230</b>
NOT TOO FAR	120	52
NEAR	60	26
DON'T KNOW	30	13
NEVER BOUGHT	20	9
<b>AFFORDABILITY OF CONDOMS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE ( BASE =264)</b>
YES	187	70.8
NO	17	6.4
NEVER BOUGHT	35	13.3
DON'T KNOW	25	9.5

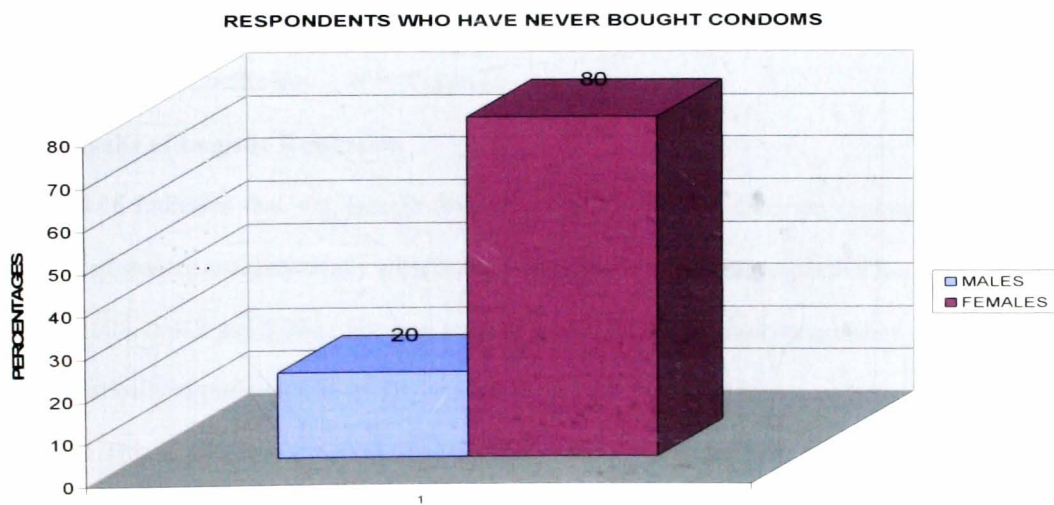
#### 4.8.9 Possession of Condoms

In order to find out how students prepare for unexpected sexual activity, they were asked if they always had with them condoms. Only 70(26.5%) always kept it on them. Those who kept it occasionally were 130(49.5%) while 64 (24.2%) never did that.

#### 4.8.10 Purchase of Condoms by Sex of Respondents

From figure 4.15 out of the 35 (13.3%) respondents who have never bought condoms, the female respondents were about 4 times 28 (80%) as many as the males.

**Figure 4.11 Purchases of Condoms by Sex of Respondents**



One female student stated in a FGD:

*I can never imagine myself in a pharmacy shop buying a condom. I feel very shy, the remaining female students agreed that it is just impossible to buy condoms as female students on this campus we feel so embarrassed about it.*

## 4.9. Results of Regression Analysis

Ever use of contraceptive is the dependent variable. The independent variables were selected demographic, socio-cultural, behaviour and service –related variables that were statistically significant in the Chi-square analysis. Refer to tables: (4.6, 4.7, 4.12 & 4.13) at pages 53, 55, 64 and 65. The least proportion of variables on ever use of contraceptives was referred to as reference category (RC) to which other categories were compared. Statistical Package for Social Scientist (SPSS), version 11 was used for the analysis. The logistic regression model used was  $\ln(p/1-p) = \alpha + \beta_1 + \beta_2 + \beta_3 + \dots + \beta_n$ .

The logistic regression model for N- independent variables ( $x_1, x_2, \text{ and } x_3 \dots x_n$ ) is given as:  $\ln(p/1-p) = \alpha + \beta_1 + \beta_2 + \beta_3 + \dots + \beta_n$ .

Exp  $\beta$  = Odds ratio for a person having attribute *I* versus not having it

$\beta$  = Regression Coefficient     $\alpha$  = Constant

### 4.9.1 Results of Logistic Regression

Tables 4.16 indicates that sex, benefit from sex education programmes on campus and location of student are statistically significant in the model; with their respective P-values being: 0.008, 0.019 and 0.036. For age, level of study and unintended pregnancies, none was statistically significant but, as age increased, the odds ratio also increases from 1.008 to 1.969. This is also true for level of study except for 3<sup>rd</sup> year students where the odds ratio is zero. The converse is true for number of unintended pregnancies, as number of pregnancies increases the odds ratio decreases from 26.678 to 2.248. Respondents who are able to rightly identify symptoms of STDs and those with high knowledge of side effects of contraceptives have odds ratios: 1.300 and 0.476. Also both are statistically insignificant.

**Table 4.16** Regression Analysis of Demographic, Socio-Cultural, Behaviour and Service-Related Variables on Contraceptive Use

VARIABLES	B	S.E.	Wald	Sig.	Exp(B)
<b>Age Group</b>					
15-19 (RC)					
20-24	0.008	0.075	0.11	0.918	1.008
25-59	0.678	1.137	0.355	0.551	1.969
<b>Sex</b>					
Female (RC)					
Male	1.739	0.652	7.116	0.008	5.691
<b>Year/Level of study</b>					
1 <sup>st</sup> year (RC)					
2 <sup>nd</sup> Year	0.280	1.030	0.074	0.786	1.323
3 <sup>rd</sup> Year	-7.632	71.987	0.011	0.916	0.000
4 <sup>th</sup> Year	0.903	0.973	0.863	0.353	2.468
<b>Number of unintended pregnancies</b>					
More than three times (RC )					
Once	7.872	86.879	0.008	0.928	26.678
Twice	-0.778	93.631	0.000	0.993	0.459
Thrice	0.810	284.414	0.000	0.998	2.248
<b>Identification of STDs</b>					
No identification (RC)					
Right identification	0.262	0.486	0.291	0.590	1.300
<b>Benefit from Sex Education programme on campus</b>					
Never benefits (RC)					
Benefits	1.506	0.640	5.529	0.019	4.508
<b>Location of student</b>					
Single sex hall (RC)					
Mixed sex hall	1.296	0.617	4.420	0.036	3.656
<b>Knowledge about side effects of contraceptives</b>					
Low knowledge (RC)					
High level of knowledge	-0.741	0.483	2.360	0.124	0.476

$R^2 = 0.305$

P-value = 0.05

## CHAPTER FIVE

### DISCUSSION

#### 5. Level of knowledge of Contraceptives

##### 5.1.1 Awareness about contraceptives:

All (100%) of the respondents have ever heard about contraceptives. These findings are similar to those by Awua-Asare K, Aban AM and Kumi- Kyeremeh A, (2004) in which at least 88 % of the males and 76 % of the females are aware of contraceptives.

Awareness about contraceptives is required for possible usage by the students.

##### 5.1.2 Sources of Information about Contraceptives

With regard to the source of information about contraceptives, the most popular source was the mass media. Those who received information from TV were 467 (92.1%) as compared to the alarmingly low proportion (5.7%) that got it from pre-university education. One would expect this important issue to have been addressed extensively in sex education programmes at the basic and high school levels. At the university, sex education is not given any prominence either. This concern was raised by the head of COMBACEPH in an in-depth interview. She lamented:

*“most of our courses in the university do not have a health component isn't it?*

*Therefore even if they are able to have some knowledge it may be through the mass media. I think there should be an organized form of educating them continuously”*

The clinical setting i.e. family planning center/clinic/hospital, which could also have been a more reliable source of information about contraceptives, was a channel for only 97 (19.1 %) of the respondents. This is also not encouraging. The issue here is one of poor

patronage rather than unavailability of the services, as the head of COMBACEPH tried to explain when interviewed:

*“May be, due to our culture, it is a perception that young people are not allowed to use reproductive /family planning services, but I think is a cultural thing and they feel that maybe when they come, their colleagues would say that they are bad nuts”.*

## **5.2 Sexual Activity**

### **5.2.1 Sexually Active Students.**

Overall, it was found out that 52.1% of the respondents are sexually active or have ever had sex. More males, 61.2% than females 38.6% have ever had sex. It was also found out that, within the last 30 days, the number of males who had had sex was more (63.8%) than the female students (36.2%). The number of sexual partners per male respondent was more than for the female respondents. This implies that male students have riskier sexual behaviours than their female counterparts. This result is comparable to the study by Aras et al (2007) in Turkey where the males were found to have more frequent sexual intercourse than the females and more sexual partners. Also, (15.9%) of the respondents have either been ever pregnant or have ever made their partners pregnant. More than half (66.7%) of these pregnancies were aborted. A significant association was found between year of study and ever been pregnant ( $P$ -value  $< 0.02$ ).

This finding is similar to those by Mathews et al (2007) and Lapido et al (2006) in South Africa and Nigeria respectively in which transition to first sexual intercourse and abortion among high school students was more likely among older students than the younger ones.

### **5.2.3 Mean and Median Age at First Sexual Experience.**

The mean age at first sexual experience was 18.7. The mean age at first sex is 18.4 years for males and 19.3 years for females. The median age at first sex is 19 years. The median age is 19 and 20 for males and females respectively. The earliest age at first sexual experience was 8 years with the oldest being 26 years. These findings are in agreement with Awusabo –Asare et al (2004), and GDHS (2003) where it was observed that, the median age at first sexual intercourse was higher for females i.e. 18.5 years than males and 18.2 years. According to the GDHS 2003 report, the median age at first sex in marriage is 18.2 years. For this study, almost all the respondents were unmarried and are in school and that may be the reason why their median ages at first sex was higher.

### **5.3 Contraception.**

Among the respondents who have ever had sex, 65 % used contraceptives.

Among the male respondents, 106 (40.2%) used contraceptives while 65 (24.6%) of the females also used it at first sex. The most commonly used method was the condom (87.7%). The mean and minimum age at first condom use are 19.6 years and 13 years respectively while that at first sex is 18.7 and 8 years this means some respondents could be exposed to pregnancies, STDs including HIV/AIDS.

#### **5.3.1 Knowledge, ever and current use of contraceptives**

All time use of contraceptive was used as a proxy for current use because it is a sign of good behaviour. Besides, contraceptive consistency is a more accurate predictor of unintended pregnancy than are single-time measures of contraceptive use at first sex or last sex (Glei, 1999). Although all the respondents who have ever had sex or not have

heard about contraceptives those who always used contraceptives during sexual intercourse were 109 (41.3%). This means that, 155 (58.7%) do not always use it. However, majority of the students (92.8%) have ever used contraceptives. Comparing these statistics to the Ghana Demographic and Health Survey (2003), the findings are similar as: ever use was almost twice (55%) of current use (25%).

### **5.3.2 The Gap between Knowledge and Use**

Out of the 264 respondents who have ever had sex, 255 (95.6%) knew about the male condom. The number of students who have knowledge of the female condom, pill and injectables were 220 (83.3%), 222 (84.1%) and (26.1%) respectively. Unfortunately, only 41% always used or are currently using a method. More so, only 59% used condom during their last sex and some students are also unable to use condoms throughout sexual actual intercourse. This is similar to the findings of Adje et al (2007) where contraceptive awareness among adolescents is high but unsafe sexual practice is very common.

From the Ghana Demographic and Health Survey (2003), knowledge of male condom, pill and injectable among sexually active unmarried women were 99%, 90% and 92% respectively. From this it can be seen that the students who knew about injectable were far less than those in the DHS survey.

### **5.4 Place for Sexual Activity**

Majority (75.6%) of the respondents were having sex off campus. Out of the 17% of students who had sex on campus, (52%) had sex in their rooms. This affected some of students who were not engaging in such acts. From Focus Group Discussion, with students when they were asked if the sexual activities in their rooms affected their studies

they responded: *“These activities affect our studies, is either, we have to excuse them, or stay in the room and listen to all the noise the couple is making and it affects our concentration”*

For this reason, (50.8%) of the students proposed two as the ideal occupancy per room.

## **5.5 Assessment of reproductive health needs: Awareness, Identification, of symptoms and infections with of STDs**

### **5.5.1 Identification, Infection and Treatment**

Even though (93.5%) of the respondents have heard about sexually transmitted infections, only (33.7%) were able to correctly identify symptoms of STD whereas more than half (61.1%) did so partially. The proportion of sexually active students who have ever had STDs were (5.3%) Upon infection, (89.3%) received treatment from a hospital/clinic and (7.1%) bought drugs from pharmacy shops. This is in contrast to the results of study in which Ghana National Youth Reproductive Health Survey (1998) which reported that about 75% of adolescents who got STDs sought treatment most often from a drug store. The difference in the first point of call for treatment in the two studies is most probably due to the wide variation in educational background of the respondents in the studies. University students, by virtue of their educational background, are more likely to seek treatment from orthodox health facilities compared to the youth in the general population.

### **5.5.2 Knowledge of HIV**

More than half of the respondents did not know their HIV status. This is worrying because having no knowledge of one's HIV status does not promote responsible sexual behaviours.

### **5.5.3 Pregnancies and Abortions**

The respondents who had ever been pregnant were 42 (15.9%). Out of the respondents who had ever been pregnant, 29 (69%) were not prepared for the pregnancy. The number that aborted their pregnancies out of the twenty- nine was 28 (96.6 %). Pearson chi-square test showed strong association between ever been pregnant and year of study (P-Value was less than 0.002). This is similar to a study by Adinma et al (1994) where (38% ) of Tertiary students had ever been pregnant.

## **5.6 Service –Related Factors: Sex Education Programmes, Accessibility, Availability and Affordability of Contraceptives**

More than half 296 (58.4%) of the respondents have never benefited from sex education programmes. The numbers of students that occasionally benefit are 169 (33.3%). Only 42, (8.3%) always benefited from such programmes. This is confirmed by in-depth interview with Head of Family planning unit of University Hospital, She stated:

*“The hospital has no programme for the university on sex education programmes.”*

More than half of the respondents buy contraceptives and condoms specifically from pharmacy outside campus. Also, 76% of the respondents confirmed that cost of contraceptives is affordable and more than half 64% stated that distance from their hostel to where they can buy contraceptives is not far. From FGD, students explained that they do

not have condoms readily available in their hostels. However, only (58.7) % of the respondents,always /are currently using contraceptives.

From these findings, it can be said that, there may be a cultural barrier that prevents students from using contraceptives. This is supported by findings from in-depth interview with head of COMBACEPH.

*May be is a perception that they have, that young people are not allowed to use reproductive /family planning services. Although we have tried a lot to talk to them about COMBACEPH: We use posters, we go to the radio stations including Radio Universe, and sometimes when we meet them, we give them educative leaflets to go and read but I think is a cultural thing, and they feel that maybe when they come, the other colleagues would say may be they are bad nuts or something."*

Moreover, over 75% of them thought there were side effects which could also be an impediment in their way as regards use of contraceptives.

### **5.7. Determinants of Contraceptives Use among Tertiary Students**

Sex of respondent, location of student and benefit from sex education programmes on campus were the only three statistically significant variables in the model.

The male respondents are 5.7 times more likely to have ever used contraceptives than their female counterparts. This could probably be due to the fact that the most commonly known (95.5%) and used (87.2%) method among the students is the male condom. Besides, the male condom may be more convenient to use since students have high perception about side effects of contraceptives.

Similarly, those who benefit from sex education programmes on campus are 4.5 times more likely to have ever used contraceptives than those who never benefited from such programmes. These findings are consistent with a survey by Philliber et al, (2002) and Matiniuke et al (2002) in which students who were exposed to sex education programmes adopted more sexually healthy attitudes such as abstinence and condom use.

More so, students in mixed sex halls are 3.7 times more likely to have ever used contraceptives. This might be due to increased partner interactions that occur in the mixed sex halls that might give rise to increased sexual activity than the single sex halls.

For age and level of study, none of them was significant. However, there seems to be an increasing likelihood of ever usage of contraceptive from the 1<sup>st</sup> to the 4<sup>th</sup> year excepting the 3<sup>rd</sup> year where, for some unclear reason, the likelihood decreases.

Similarly, the number of unintended pregnancies a student has had and the ability of students to identify STDs are not significant predictors of contraceptive usage in the model. However, those who could rightly identify STDs appear more likely to have ever used contraceptives than those who could not. Likewise, those who have the fewest unintended pregnancies appear most likely to have ever used contraceptives.

Lastly, respondents with high knowledge of side effects of contraceptives are less likely to have ever used contraceptives compared to those with none, though not statistically significant. The perceived knowledge of the side effects of using contraceptives might have contributed to discouraging students from using it.

## **CHAPTER SIX**

### **6. CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Conclusion**

The objective of the study was to determine the sexual behaviour, knowledge and use of contraception among residential undergraduate students of the University of Ghana, Legon. A total number of 507 students were systematically sampled for study and a structured questionnaire was administered to the eligible students. Focus group discussion and in-depth interviews were further conducted to augment the quantitative aspect of the study.

The results show that a substantial proportion (52%) of respondents have ever had sex with 162((61.2%) being males and 102(38.3%) being females. The median age at first sexual experience is 19 and this is 19.3 for males and 20 for females.

Sexual activities occurred in the rooms of some of the students which were a form of nuisance to those who were not engaging in those behaviours.

Ramifications of unhealthy sexual behaviours such as unintended pregnancy occurred among (15.9%). More than 90% of the unintended pregnancies were aborted. Whiles 5.3% have ever had sexually transmitted infections. Only 7% asked their partners to be treated. All (100%) of the respondents claimed to have ever heard about contraceptives, but its only 41.3% who always used contraceptives. The most commonly used method is the condom, ever use (87%) but it's only 26.5% who had condoms with them. Most (80%) of the female respondents have never bought condoms and from discussions, they explained it was not appropriate or it embarrasses them to keep or buy condoms.

The most significant factors that contributed to contraceptive use among students were sex of respondent and hall/ hostel of residence and benefit from sex education programme on campus.

The study has shown that, tertiary students have knowledge of modern methods of contraceptives, especially the condoms. It has also shown that a little over half of tertiary students have ever had sex and some are currently sexually active. However, there seems to be wide gap between knowledge of contraceptives and its use. This unhealthy sexual practice among some of them has ramifications including STDs, unintended pregnancies and unsafe abortions.

## **6.2 Recommendations to the University authorities.**

- 1) Continuous and extensive research on sexual behavior of students should be conducted so that more scientific information would be readily available.
- 2) From the results of the structured interview in addition to in-depth interview with the Dean of students, SRC president, Head of COMBACEPH, Head of the Reproductive Health Unit of University hospital, FGD and regression analysis, it is obvious that, sex education program has an impact on contraceptive usage. Therefore, a more holistic approach must be adopted in running sex education programmes through collaboration between the University, School of Public Health, School of Nursing, TALIF project, University Hospital, Social groups and any other organization interested sexuality issues. Here attention must be paid to gender differences.
- 3) Where possible, sexuality education can be included in the school curriculum so that any student that passes through the school would benefit.

4) A clear and definite policy on sexual activity, and pregnancy should be adopted in the hostels/halls.

5) Halls of residence should be provided with counselors who will take care of students' sexual health needs. For example, Floor Representatives could be used to distribute condoms

6) Collaboration between Women's Commission and University to provide hot line services for female students in respect of rape and other sexual and reproductive health issues

7) Improvement in residential facilities not necessarily for sexual activity but for the general well being of students.

From in-depth interview of both Dean of students and President of Student representative council it was recommended that a maximum of three students per room would help.

8) Retraining of health workers in provision of adolescent sexual and reproductive health services.

## APPENDIX A

TABLE OF VARIABLES

DEMOGRAPHIC FACTORS	BEHAVIOUR RELATED FACTORS (SEXUAL BEHAVIOUR)	SOCIO-CULTURAL FACTORS	SERVICE- RELATED FACTORS
	AGE AT FIRST SEXUAL EXPERIENCE	LOCATION OF STUDENT. (MIXED SEX /SINGLE SEX HALL)	KNOWLEDGE OF STI& HIV/AIDS STATUS
	KNOWLEDGE OF HIV/AIDSSTATUS & STI	KNOWLEDGE (PERCEPTION) OF SIDE EFFECTS OF CONTRACEPTIVES	KNOWLEDGE OF CONTRACEPTIVE USE
LEVEL OF STUDY	NUMBER OF UNINTENDED PREGNANCIES	STATUS OF WOMEN (GENDER ISSUES)	UNIVERSITY SUPPORT SYSTEM (SEX EDUCATION PROGRAMMES)
MARITAL STATUS	NUMBER OF SEXUAL PARTNERS.	ECONOMIC SITUATION OF STUDENT (E.G SELF-SPONSORED, SCHOLARSHIP, PARENTS/GUARDIAN SPONSORED)	AVAILABILITY OF CONTRACEPTIVES
RELIGION	FREQUENCY OF SEXUAL INTERCOURSE		AFFORDABILITY OF CONTRACEPTIVES
			ACCESSIBILITY OF CONTRACEPTIVES

## APPENDIX B

### REFERENCES

1. Ademala J.A., (2005). Understanding human sexuality seminar, Series 3.
2. Adeniran B. A , Adewole I. F, Umoh A.V, Ekanem E.E, Gbadegesin A, Iwere N, (2004). African Journal of Reproductive Health. **8**, 103-113
3. Adinma J. I. B-D, Agbai A. O. Okeke A. O. (2005). Advances in contraceptive use. **10**, 265-270.
4. Ahiadeke C, (2001) Incidence of Induce Abortion in Southern Ghana. Family Planning Perspectives, Vol. 27
5. Ajuwon AJ, Olaleye A, Faromoku B and Ladipo O, (2006). Sexual behavior and experience of sexual coercion among secondary school students in three states in North Eastern Nigeria. BMC Public Health. **6**,310.
6. Anarfi (2005), Presentation on the University of Ghana's Response to HIV/AIDS.
7. Aras S, Orcin E, Ozan S and Semin S, (2007). Sexual Behaviours and Contraception Among University Students in Turkey. Journal of Biosocial Science **39**: 121-135
8. Awuasabo-Asare K, Abane AM, Kumi-Kyeremeh A, (2004). Occasional Report, New York: Sexual and Reproductive Health in Ghana. A Synthesis of Research Evidence. The Alan Guttmacher Institute. No. 13
9. Baiden F, Awinia E, Clerka C, (2002). Perception of university students in Ghana about emergency contraception. Contraception, an International Journal **1**, 23-26

10. Biddlecom, E. A, Munthali A, Singh S, Woog V, (2007). Adolescents' views of and preferences for sexual and reproductive health services in Burkina Faso, Ghana, Malawi and Uganda. African Journal of Reproductive Health. **11(3)**: 99-100
11. Bosomptra (2001).Determinants of condom use intentions of University students in Ghana: an application of the theory of reasoned action. Social Science& Medicine **52(7)**  
1057-1069
12. Byamugisha J.K, Mirembe F.M, Faxeli E & Gemzell-Danielsson K, (2006). Emergency Contraception and Fertility awareness among University Students in Kampala,Uganda. African Health Science. **6(4)**: 194–200.
13. Ceballos A. G. P., Campo-Arias A. D.M (2007).Sexual Intercourse Among Adolescent Students Of Santa Marta, Columbia: a cross sectional survey. Columbia Medical journal **vol. 38** no3.
14. Centers for Disease Control and Prevention, United States, (1997). Prevalence of risk behaviours for HIV\_infection among adults, MMWR **50** (14): 262-265.
15. Centers for Disease Control and Prevention United States (2000). Tracking the hidden epidemics: Trends in STDs p.1.
16. Desarrollo Y (1995), Youth influence of religion on contraceptive use.Revista Población **(5)**:30-4.

17. Finney H (2003). Family Practice. 20, 193
18. WHO report, (2006). Global strategy for the prevention and control of sexually transmitted infections 2006-2015, Key messages, Department of Reproductive Health and Research.
19. Glover EK, Bannerman A, Pence BW, Jones H, Miller W and Neequaye –Tetteh J (2003) International Family Planning Perspective. **29**, 1 pp. 32-40
20. Grimes A.D, Janie B.J, Singh S, Romero M, Ganatra B, Okonofua E.F, and Shall I.H, (2006).Unsafe Abortion: the preventable pandemic. Lancet. **25**; 368(9550):1908-19.  
  
Available @ <http://her.oxfordjournals.org/misc/terms.shutml>
21. Martiniuk C, Steel K, Connor O, King D.W, (2003). A cluster trial of a sex education in Belize, Central America. International Journal of Epidemiology. **32**, 131-136.
22. Mathews C, Edvard A. L, Flisher A.J.G, Mukoma W, Wubs A.G, and Schaalma H, (2008). Health Education Research Advance Access published.
23. Mulatu M.S, Adamu R, Ingidashet H, (2000). Psychosocial and Contextual Determinants of Past and Intended Condom Use among Ethiopian Secondary Schools Northeast African Studies. **1**, 85-108.
24. National AIDS Control Programme, Report, (2008)

25. Oye-Adeniran B, Aadewole F.I, Umoh A.V, Ekenam E.E, Gbadegesin A, Iwere N, (2004) Community-Based Survey of Uwanted Pregnancy in Southern Nigeria. African Journal of Reproductive Health **8**, 103-115.
26. Online Dictionaries. Available at [www.census.gov/ipc/www/wp96glos.html](http://www.census.gov/ipc/www/wp96glos.html)
27. Philliber S, Jacqueline K. J.W, Herrling S & West E, ( 2002). Preventing Pregnancy and Improving Health Care Access Among Teenagers: An Evaluation Of the Children's Aid Society-Carrera Program. Perspectives on Sexual and Reproductive Health Vol. 34.
28. Society, West Africa- Ghana. Ghana AIDS Control Programme (2007) Pan African Health,
29. UNAIDS/ WHO report, (2006), Global Strategy for the Prevention and control of STIs, Key Messages
30. United Nations Statistics (2007), Prevalence of Modern Contraceptive Use.
31. Virtala A.M, Kunttu K, Huttunen T.A, Virjo I.O. (2007), European Journal of Obstetrics, Gynecology and Reproductive Biology, **135**, 104-110.
32. Wendy D, Manning M, Longmore A, C, and Giordano C.G, (2000). The Relationship Context of Contraceptive Use at First Intercourse. Family Planning Perspectives Vol.32
33. Wellings K, Collumbien M, Slaymaker E, Singh S, Hodges Z, (2006). Lancet **9584**, 1706-1728.24.

34. William K. A. Agyei, Richard B. Biritwum , A. G. Ashitey AG, and Robert B. H, (2000). Sexual Behaviour and Contraception Among Unmarried Adolescents and Young Adults in Greater Accra and Eastern Regions of Ghana Journal of Biosocial Science **32**,495-512
35. WHO Report, (2002), Integrating Gender into HIV/AIDS Programmes.
36. WHO Report (2004), Not Every Pregnancy is Welcome: Planning Every Pregnancy before They Happen.
37. WHO Report, (2003), Contraceptive Use.
38. WHO Report (2006), Prevalence of HIV/AIDS
39. WHO Report, (2007), Unmet need for contraceptives

**APPENDIX C**

**SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA, LEGON**

**CONSENT FORM**

**INTRODUCTION**

I am a Master of public health student at the University Of Ghana, Legon. As part of my academic requirement, am conducting a study on:

**Sexual Behaviour and Contraceptive in Tertiary Educational Institutions:  
A Case Study of the University of Ghana, Legon**

I shall be grateful if you can respond to the questions.

All information you provide will be held in confidence. No names are required except initials. You are assured of maximum anonymity.

It is important to note that you are not under any obligation to answer a question you are not comfortable with; however I would encourage you to answer the questions to your best of ability.

Please sign at the space provided below if you are willing to participate in the study.

Thank you for your consent and co-operation.

Signature of respondent.....

**APPENDIX D**

**QUESTIONNAIRE**

**SECTION I**

**101) FORM NUMBER**

--	--	--	--	--

**102) DATE OF INTERVIEW**

--	--	--	--	--	--	--

**103) TELEPHONE NO\_**

--	--	--	--	--	--	--	--	--

**104) HALL/HOSTEL**

M S-1 LH-2 VH-3 EH-4 CWH-5 AH-6 KH-7 JH-8 AA-9

--

**105) INITIALS OF RESPONDENT**

--	--	--	--

**106) NAME OF INTERVIEWER** .....

**DIRECTIONS:** Please provide the appropriate answer with a tick for the questions.

**SECTION 2: DEMOGRAPHIC AND SOCIO-ECONOMIC DATA**

	QUESTION	RESPONSE	VARIABLE
21	<p><b>Sex of respondent</b></p> <p>1. Male 2. Female</p>	<input type="checkbox"/>	Q1SEX
22	<p><b>How old were you on your last birthday? (please provide age in completed years)</b></p>	<input type="checkbox"/>	Q2AGE
23	<p><b>Marital status</b></p> <p>1. Single 2. Married 3. Divorced 4. separated 5. cohabitation 6. Other (Specify).....</p>	<input type="checkbox"/>	Q3MSTATE
24	<p><b>What religion do you belong to?</b></p> <p>1. Christian 2. Traditionalist 3. Moslem 4. Other (specify).....</p>	<input type="checkbox"/>	Q4RELIGN
25	<p><b>What ethnic group do you belong?</b></p> <p>1. Akan 2. Ewe 3. Housa 4. Damgbe 5. Ga 6. Other (specify).....</p>	<input type="checkbox"/>	Q5ETHNIC

206	<p><b>At what level are you studying now?</b></p> <ol style="list-style-type: none"> <li>1. level 100 fresh</li> <li>2. level 200 fresh</li> <li>3. level 200 continuing</li> <li>4. level 300</li> <li>5. level 400</li> </ol>	<input type="checkbox"/>	Q6LSTUDY
207	<p><b>How are you financing your education?</b></p> <ol style="list-style-type: none"> <li>1. Parents/guardian/scholarship/loan scheme</li> <li>2. Parents/guardian/loan scheme</li> <li>3. Parents/guardian only</li> <li>4. Loan scheme and Self sponsored</li> <li>5. Self sponsored</li> <li>7. Employer sponsored</li> <li>8. Other (specify).....</li> </ol>	<input type="checkbox"/>	Q7SPONED

**SECTION 3: LEVEL OF KNOWLEDGE OF CONTRACEPTIVES**

- 301. Have you ever heard about contraceptives?** 1. Yes   
 2. No

*(If no skip to section 4 question 1)*

**302. If yes, what is your main source of information about contraceptives? (Tick all that apply)**

- |   |  |
|---|--|
| 1. Parents <input type="checkbox"/>     | 6. Internet <input type="checkbox"/>                                 |
| 2. Friends <input type="checkbox"/>     | 7. Text books/books <input type="checkbox"/>                         |
| 3. TV/Radio <input type="checkbox"/>    | 8. Family planning center/hospital/clinic <input type="checkbox"/>   |
| 4. News papers <input type="checkbox"/> | 9. Sexuality education programmes on campus <input type="checkbox"/> |
| 5. Films/Drama <input type="checkbox"/> | 10. Other (specify).....   |

**303) If yes, what are they used for? Tick all that apply**

- |  |   |
|--|---|
| 1. To prevent pregnancy <input type="checkbox"/>   | 2. To end childbearing <input type="checkbox"/> |
| 4. To delay pregnancy <input type="checkbox"/>   | 3. To space children <input type="checkbox"/>   |
| 5. Prevent reproductive tract infections, sexually transmitted disease and HIV/AIDS <input type="checkbox"/> |   |
| 6. Other (specify).....  |   |

**304) which of the contraceptives methods do you know? (Tick all that apply)**

- |  |   |   |
|--|---|---|
| 1. IUD <input type="checkbox"/>                | 6. Sympho-thermal <input type="checkbox"/>      | 11. Injectable/Depo- provera <input type="checkbox"/> |
| 2. Pill <input type="checkbox"/>               | 7. Female condom <input type="checkbox"/>       | 12. Vasectomy/MS <input type="checkbox"/>             |
| 3. Diaphragm <input type="checkbox"/>          | 8. Herbs <input type="checkbox"/>               | 13. Female sterilization/BTL <input type="checkbox"/> |
| 4. Foam tablets/jelly <input type="checkbox"/> | 9. Periodic abstinence <input type="checkbox"/> | 14. Emergency contraceptive <input type="checkbox"/>  |
| 5. Male Condom <input type="checkbox"/>        | 10. Norplant/Implants <input type="checkbox"/>  | 15. Withdrawal method <input type="checkbox"/>        |
| 16. Other (specify) .....                      |   |   |

**305) Are there side effects of contraceptives?**

1. Yes       2. No       3. Don't Know

*(If no skip to question 308)*

**306) If yes, what are the side effects of contraceptives that you know about?**

**(Tick all that apply).**

- |                                   |                          |  |                          |
|-----------------------------------|--------------------------|--|--------------------------|
| 1. Nausea                         | <input type="checkbox"/> | 4. Amenorrhoea /No periods/ Menstruation | <input type="checkbox"/> |
| 2. Vomiting                       | <input type="checkbox"/> | 5. Minor headaches                       | <input type="checkbox"/> |
| 3. Spotting, (irregular bleeding) | <input type="checkbox"/> | 6. Weight gain                           | <input type="checkbox"/> |
| 7. Other (specify).....           |                          |  |                          |

**307). Do the benefits of contraceptives outweigh their side effects?**

1. Yes       2. No       3. Don't know

**308) If you want to prevent pregnancy and sexually transmitted infections at the same time, what is/ or are the best method(s) to use.**

- |                          |                          |                        |                          |                              |                          |
|--------------------------|--------------------------|------------------------|--------------------------|------------------------------|--------------------------|
| 1. IUD                   | <input type="checkbox"/> | 6. Sympto-othermal     | <input type="checkbox"/> | 11. Injectable/Depo- provera | <input type="checkbox"/> |
| 2. Pill                  | <input type="checkbox"/> | 7. Female condom       | <input type="checkbox"/> | 12. Vasectomy/MS             | <input type="checkbox"/> |
| 3. Diaphragm             | <input type="checkbox"/> | 8. Herbs               | <input type="checkbox"/> | 13. Female sterilization/BTL | <input type="checkbox"/> |
| 4. Foam tablets/jelly    | <input type="checkbox"/> | 9. Periodic abstinence | <input type="checkbox"/> | 14. Emergency contraceptive  | <input type="checkbox"/> |
| 5. Male Condom           | <input type="checkbox"/> | 10. Norplant/Implants  | <input type="checkbox"/> | 15. Withdrawal method        | <input type="checkbox"/> |
| 16. Other (specify)..... |                          |                        |                          |                              |                          |

**SECTION 4: BEHAVIOUR FACTORS (SEXUAL ACTIVITY)**

**401) Do you benefit from sexuality education/family planning programmes on campus?** 1. Never

2. Occasionally

3. Never

**402) what is your main source of information about sex? (Tick all that apply)**

1. Parents  6. Internet

2. Friends  7. Text books/books

3. TV/Radio  8. Family planning center/hospital/clinic

4. News papers  9. Sexuality education programmes on campus

5. Films/Drama  10. Other (specify).....

**403) Have you ever had sexual intercourse?** 1. Yes

2. No

*(If No, skip to Question 437)*

**404) If yes, how old were you when you first had sexual intercourse**

1. Age in completed years  Don't Know/Don't remember

2. Age range

**405) What was your relationship with your partner the first time you had sexual intercourse?**

1. Fiancée  4. Casual acquaintance

2. Boy/girlfriend  5. Relative

3. Friend  6. Prostitute

7. Other (specify).....

**406) what was the reason why you had sex the first time?**

- |                 |                          |   |                          |
|-----------------|--------------------------|---|--------------------------|
| 1. Forced       | <input type="checkbox"/> | 4. Under the influence of other drugs     | <input type="checkbox"/> |
| 2. Seduced      | <input type="checkbox"/> | 5. For money (for financial assistance)   | <input type="checkbox"/> |
| 3. For pleasure | <input type="checkbox"/> | 6. Drunk (under the influence of alcohol) | <input type="checkbox"/> |

Other (specify).....

**407) How long did you know your partner before having sex with him/her?**

- |                        |                          |                        |                          |
|------------------------|--------------------------|------------------------|--------------------------|
| 1. Just met (24hrs)    | <input type="checkbox"/> | 4. Months (After 1Mth) | <input type="checkbox"/> |
| 2. Days (7days)        | <input type="checkbox"/> | 5. Years (Yr or more)  | <input type="checkbox"/> |
| 3. Weeks (within 4wks) | <input type="checkbox"/> |                        |                          |

**408) When was the last time you had sexual intercourse?**

- |                     |                          |                    |                          |
|---------------------|--------------------------|--------------------|--------------------------|
| 1. Some days ago    | <input type="checkbox"/> | 4. A year ago      | <input type="checkbox"/> |
| 2. Some weeks ago.  | <input type="checkbox"/> | 5. Years back.     | <input type="checkbox"/> |
| 3. Some months ago. | <input type="checkbox"/> | 6. Don't remember. | <input type="checkbox"/> |

*(If answer is 3, 4,5or 6 Skip to 412)*

**409) Within the last 30 days have you had sexual intercourse?**

1. Yes     2. No     3. Don't know/ remember

*(If No skip to question 412)*

**410) During the last 30 days how often have you had sexual intercourse?**

- |                       |                          |                          |                          |
|-----------------------|--------------------------|--------------------------|--------------------------|
| 1. 3-5 times per week | <input type="checkbox"/> | 5. Once per month        | <input type="checkbox"/> |
| 2. Twice per week     | <input type="checkbox"/> | 6. Twice per month.      | <input type="checkbox"/> |
| 3. Once per week      | <input type="checkbox"/> | 7. Other (specify) ..... |                          |
| 4. Once per 2 weeks   | <input type="checkbox"/> |                          |                          |

**411) During the past 30 days how many people have you had sex with?**

1. One       3.Three   
 2. Two       4. More than Three

**412) What was the reason why you had sex the last time?**

1. Forced       4. Under the influence of other drugs   
 2. Coerced       5. For money (for financial assistance)   
 3. For pleasure       6. Drunk (under the influence of alcohol)   
 7. Other (specify).....

**413). Did you talk about contraceptive methods with your partner the first time you**

- had sex?** 1. Yes       2. No       3. Don't remember

**414) Did you or your partner use any contraceptive to prevent pregnancy the first**

- time you had sex?** 1. Yes       2. No       3.Don't know/don't remember

**415) If yes which method did you or your partner use? (Tick all that apply)**

1. IUD       6.Symtho-thermal       11. Injectable/Depo- provera   
 2. Pill       7.Female condom       12.Vasectomy/MS   
 3. Diaphragm       8.Herbs       13. Female sterilization/BTL   
 4. Foam tablets/jelly       9.Periodic abstinence       14. Emergency contraceptive   
 5. Male condom       10.Norplant/Implants       15. Withdrawal method   
 16. Other (specify).....

**416) Do you always use a contraceptive method when you have sex?**

1. Sometimes       3.Always       5.Never   
 2. Often       4.Rarely

**417) Did you talk about contraceptives the last time you had sexual intercourse?**

1. Yes  2. No  3. Don't remember  4. Already discussed with partner

**Place for Sexual Activity**

**418) where do you usually have sex during the semester?**

1. On campus  Off campus

Why? Where? Why not? .....

**419) With the crowded rooms are you or will you be able to have sex conveniently on campus?**

1. Yes  2. No  3. Don't Know

Probe further .....

**420) Must the authorities create a better environment for privacy?**

1. Yes  2. No  3. Don't Know

**421) Does this situation lead to going to town to have sex?**

1. Yes  2. No  3. Don't Know

**422) Does it lead to having older partners off campus with whom you have sex?**

1. Yes  2. No  3. Don't Know

**423) Does the environment lead to having multiple sexual partners on Campus and Off Campus?** 1. Yes  2. No  3. Don't Know

**424) What should be the ideal occupancy for your rooms in the hall?**

1. One  4. Four   
2. Two  5. Five   
3. Three  6. Other (specify).....

Please I would like to ask you some questions about fertility

### Fertility, pregnancy and abortion

425) Have you or your partner (s) ever been pregnant?

1. Yes  2. No  3. Don't know/don't remember

*(If No, skip to 437)*

426) If yes, how many times have you or your partner (s) ever been pregnant?

1. Once  3. Thrice   
2. Twice  4. More than three times

427) At the time you or your partner(s) became pregnant, were you prepared for the pregnancy?

1. Yes  2. No  3. Don't know/don't remember

428) Were you or your partner(s) able to carry any or all of the pregnancies to term?

1. Yes  2. No  3. Don't know/don't remember

429). Are you or your partner(s) pregnant at present/at the moment?

1. Yes  2. No

430) Have you or your partner(s) ever tried to abort a pregnancy?

1. Yes  2. No

*(If No skip to question 437)*

431) How many times have you or your partner(s) tried to abort a pregnancy?

1. Once  3. Thrice   
2. Twice  4. More than three times

432) Was the last abortion successful?

1. Yes  2. No  3. Don't know

**433) How did you abort that pregnancy?**

**(Specific drug)**

- |                                  |                          |                                      |                          |
|----------------------------------|--------------------------|--------------------------------------|--------------------------|
| 1. At a health centre /hospital  | <input type="checkbox"/> | 6. Drugs from the pharmacy/drug shop | <input type="checkbox"/> |
| 2. At a maternity home           | <input type="checkbox"/> | 7. Inserted soaked blue gun leaf     | <input type="checkbox"/> |
| 3. Took Chloroquine tablets      | <input type="checkbox"/> | 8. Took Herbal Preparation           | <input type="checkbox"/> |
| 4. Drunk washing powder solution | <input type="checkbox"/> | 9. Other (specify) .....             |                          |
| 5. Drunk ash solution            | <input type="checkbox"/> |                                      |                          |

**434) Were the two previous ones also successful?**

1. Yes  2. No  3. Don't know

**435) If yes, were they aborted by any means other than the ones listed above?**

Specify.....

**Sexually transmitted infections/ diseases**

Please I would like to ask you some questions about your health.

**436) If yes, were they aborted by any means other than the ones listed above?**

1. Yes  2.No

*(If no, skip to question 440 for sexually active)*

**437) If someone has sexually transmitted disease what symptoms might he/she have?**

**(Tick all that apply)**

- |                         |                          |  |                          |
|-------------------------|--------------------------|--|--------------------------|
| 1. Abdominal pain       | <input type="checkbox"/> | 8. Smelling discharge from the penis or vagina | <input type="checkbox"/> |
| 2. Genital warts        | <input type="checkbox"/> | 9. Redness or inflammation in genital area     | <input type="checkbox"/> |
| 3. Blood in urine       | <input type="checkbox"/> | 10. Swelling in the genital area               | <input type="checkbox"/> |
| 4. Genital itching      | <input type="checkbox"/> | 11. Impotent/no erection                       | <input type="checkbox"/> |
| 5. Genital sores/ulcers | <input type="checkbox"/> | 12. Systemic disease                           | <input type="checkbox"/> |
| 6. Loss of Weight       | <input type="checkbox"/> | 13. Don't know                                 | <input type="checkbox"/> |

7. Burning pain on urination  14. Other (specify).....

*(Skip to question 446 for those who have never had sex)*

**438) Have you ever had a sexually transmitted disease?**

1. Yes  2. No  3. Don't know

**439) Sometimes young men and women experience abnormal discharge from their vagina and penis. During the past 12 months have you had an abnormal discharge from your penis or vagina?**

1. Yes  2. No  3. Don't know

**440) Sometimes, young men and women have ulcer on or near their vagina or penis. During the past 12 months have you had an ulcer on or near your penis or vagina?**

1. Yes  2. No  3. Don't know

*(If no or don't know to both 440 and 441 skip to 446)*

**441) The last time you had problems or experienced some symptoms similar to the one mentioned in Q440 or Q441 above, did you seek any kind of advice or treatment?** 1. Yes  2. No

**442) Did you do any of the following upon infection?**

1. Go for treatment at the clinic/ Hospital  4. Buy drug from the pharmacy shop

2. Went to a traditional healer  5. Others (specify).....

3. Asked for advice from friends

**(443) Did you ask your partner(s) also to be treated?**

1. Yes  2. No  3. Don't remember

**(444) What did you do to prevent your partner from getting infected?**

1. Took medicine  3. Used a condom   
2. Stopped having sex  4. Others (specify).....

**(445) Do you know of your HIV status?** 1. Yes  2. No

**(446) If no, why have you not check your HIV status?**

1. Do not want to know  4. No place/facility to check   
2. Afraid  5. Expensive   
3. Not necessary  6. Other (specify) .....

*(End interview for those who have never had not sex and say thank you)*

## **SECTION5: ACCESSIBILITY OF CONTRACEPTIVES ON CAMPUS**

**(SERVICE RELATED FACTORS)**

**501) Where do you usually get contraceptives to buy? (Tick all that apply)**

1. Hospital  6. Midwife/Maternity home   
2. Pharmacy outside campus  7. Family planning centre   
3. Clinic  8. Pharmacy on campus   
4. Health centre  9. At School of Nursing (COMBACEPH)   
5. Private doctor/nurse  10. Never bought   
11. Others (please specify).....

**502) Are you able to afford the cost of contraceptives?** 1. Yes  2. No

**503) Do you think the cost of contraceptive(s) is/are too much for you?** 1. Yes   
2. No

**504) Do you think where you usually get contraceptives to buy is too far from the hall/hostel?**      1. Yes       2. No

**SECTION 6: FREQUENCY OF CONDOM USE**

*\*(To be administered to respondents who are sexually active or have ever had sex)*

**601) 1. Have you or your partner ever used a condom?**

1. Yes     2. No

*(If yes skip to question 603)*

**602) If no what are the reasons for not using a condom?**

- |                                    |                          |  |                          |
|------------------------------------|--------------------------|--|--------------------------|
| 1. Partner did not request         | <input type="checkbox"/> | 3. Don't know how to use a condom            | <input type="checkbox"/> |
| 2. Partner requested but I refused | <input type="checkbox"/> | 4. Don't like it because it reduces pleasure | <input type="checkbox"/> |
| 5. I requested but partner refused | <input type="checkbox"/> | 6. Trust partner                             | <input type="checkbox"/> |
| 7. Other (specify).....            |                          |  |                          |

**603) The first time you had sexual intercourse was a condom used?**

1. Yes       2. No

**604) The last time you had sexual intercourse was a condom used?**

1. Yes       2. No

**605) If yes, what are the reasons for using a condom? (Tick all that apply)**

**To prevent:**

- |  |                          |                                 |                          |
|--|--------------------------|---------------------------------|--------------------------|
| 1. Pregnancy   | <input type="checkbox"/> | 3. Partner requested/insisted   | <input type="checkbox"/> |
| 2. STD/HIV/AIDS  | <input type="checkbox"/> | 4. Both Pregnancy, STD&HIV/AIDS | <input type="checkbox"/> |
| 5. Did not trust partner/felt partner had other partners |                          |                                 | <input type="checkbox"/> |

**606) Do you use a condom anytime you have sex with a new partner?**

1. Yes  2. No  3. Sometimes

**607) Do you use condom whenever you have sex with your regular partner?**

1. Yes  2. No  3. Sometimes

**608) During sexual intercourse with any (regular or new) partner do you use condoms throughout the act.**

1. Yes  2. No  3. Sometimes

**609) How old were you when you first used a condom.**

Age in completed years

**610) Where do you usually get condoms from? (Tick all that apply)**

- |                            |                          |                                     |                          |
|----------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. UG/Hospital             | <input type="checkbox"/> | 6. Midwife/Maternity home           | <input type="checkbox"/> |
| 2. Pharmacy outside campus | <input type="checkbox"/> | 7. Family planning centre           | <input type="checkbox"/> |
| 3. Other Hospital / Clinic | <input type="checkbox"/> | 8. Pharmacy on campus               | <input type="checkbox"/> |
| 4. Health centre           | <input type="checkbox"/> | 9. At School of Nursing (COMBACEPH) | <input type="checkbox"/> |
| 5. Private doctor/nurse    | <input type="checkbox"/> | 10. Others (specify).....           |                          |

**611) Is the distance from your hall/hostel to where you usually get condoms to buy far?**

1. Yes  2. No  3. Don't Know

**612) How much is a pack of condom sold? Amount.....**

**613). Are you able to afford it all the time?**

1. Yes  2. No  3. Don't know

**614) Do you always have a condom with you?**

1. Never  2. Occasionally  3. Always

THANK YOU!

**APPENDIX E**

**INTERVIEW GUIDE FOR MANAGER OF COMMUNITY BASED  
CENTER FOR PARTNERS IN HEALTH (COMBACEPH).**

1. When did COMBACEPH start providing services?
2. What are the services you usually provide?
3. Do the students access the facility very often?
4. What category of students patronizes your services?
5. Do students voluntarily request for HIV testing?
6. Have you been organizing sex education programmes for all the students in the various halls/hostels?
7. Do you think the students who reside in the nearby hostels off the main campus would benefit from your?
8. How much do you charge for the various packages you provide?
9. What are the impediments in your way thus far?
10. In your opinion what do think can be done to improve upon the services for student
- 11) What are the reproductive health needs of students?

## APPENDIX F

### INTERVIEW GUIDE FOR DEAN OF STUDENTS

1. How often do social activities take place on campus?
2. What are some of the social activities that take place on campus?
3. Do you have policies that guide social activities on campus?
4. If yes, are these policies guided by extensive research on sexual behaviour of students.
5. Do you think partner interactions that lead to sexual activity occur among students?
6. During orientation of newly admitted students, (freshmen) are they given any information, education and counseling on sexuality issues and contraceptive use?
7. Is sexuality education a compulsory course for all students who pass through this institution?
8. Are there cases of rape on campus and if yes, how often do they occur?
9. Are there punitive measures for the perpetrators of those crimes?
10. In your own opinion, do you think there are enough reproductive /family planning services on campus?
11. Are there any policies that encourage or prevent the sale of condoms here?
12. What can be done to improve upon the sexual health of students?

**APPENDIX G**

**INTERVIEW GUIDE FOR MANAGER OF REPRODUCTIVE HEALTH UNIT**  
**FAMILY PLANNING UNIT OG UNIVERSITY HOSPITAL**

1. Do you have students coming to the family planning clinic?
2. How often do students seek family planning services?
3. Are there any cultural barriers that prevent the students from seeking reproductive health / family planning services?
4. What are the contraceptives methods that students like to use?  
What are the common ones they prefer?
5. Do you organize health education programmes for the university students?
6. What are the common sexually transmitted diseases that are reported by students?
7. Do students who report with sexually transmitted diseases willing bring their partners for treatment?
8. Do students report here with induced/incomplete/septic abortions?
9. How often do students report with induced abortions?
10. Do you provide them with post abortion contraceptives?
11. Please what do you think are the reproductive health needs of students?

## APPENDIX H

### **FOCUS GROUP DISCUSSION FOR BLOCK/FLOOR REPRESENTATIVES**

#### **A. SEXUAL BEHAVIOUR**

1. Do sexual activities take place among students in your hall/hostels?
2. What do you think are the reasons why these happen?
  - a. Mention them
3. What do you think are the consequences of unprotected frequent sexual activities among students?
4. Are there situations where students are raped in the halls/hostel
5. Do you think the number of students per room contribute in anyway to the frequency of these behaviours?
6. During social activities does the frequency of sexual activities within the hostel increase?
7. Do these behaviours have any effect on your studies?

#### **B. CONTRACEPTIVE USE**

1.
  - a. Why do you think people/students use contraceptives?
  - b. Are there any other reasons why students use contraceptives?
2.
  - a. What are the methods of contraceptives you know of? (probe further)
  - b. Mention the types
  - c. Which ones are better? Why?
3. Are there any cultural restrictions/ barriers that prevent students from using contraceptives?

4. What is/ are your source(s) of information about contraceptives?
5. How many of you or your partners use contraceptives?
6. What are the methods that you usually use?
7. What are some of the side effects that you experience
8. What are some of the complaints that you/your partners have about the use of contraceptives?
9. What are your opinions about condom use?
  - a. Are condoms sold or distributed to students during social activities on campus?
  - b. Can you boldly walk to any facility to purchase condoms without feeling embarrassed? Why?
10. What are the complaints students have about condom use?
11. What is your opinion?
12. How many of you have condoms with you presently (here or in your hostel)
  - a. Count them
13. Where can contraceptives be bought?
  - a. What are the prices
  - b. Are they affordable? What do you recommend?
  - c. Are they available? What do you recommend?

**APPENDIX I**

**INTERVIEW GUIDFE FOR PRESIDENT OF SRC**

**A. SEXUAL BEHAVIOUR**

1. What role do you play during social activities encamps?
2. Do you think that the students on campus are engaging in great sexual activity?
3. During social activities, are you allowed to distribute condoms to students?
4. Do you make any efforts to make sexuality education programmes a part of your social functions? What do you recommend?

## APPENDIX J

SCHEDULE OF ACTIVITIES/WORK PLAN

TASK TO PERFORMED	PERSON RESPONSIBLE	DATE	REMARKS
PRESENTATION AT WORKSHOP	PRINCIPAL INVESTIGATOR	18 <sup>TH</sup> /03/08	DONE
PRESENTATION OF DRAFT PROPOSAL TO SUPERVISOR	PRINCIPAL INVESTIGATOR	20 <sup>TH</sup> /03/08	DONE
PRESENTATION OF DRAFT QUESTIONNAIRE, INTERVIEW DISCUSSION GUIDES A TO SUPERVISOR	PRINCIPAL INVESTIGATOR	25 <sup>TH</sup> /03/08	DONE
PRESENTATION OF FINAL PROPOSAL AND QUESTIONNAIRE TO SUPERVISOR	PRINCIPAL INVESTIGATOR	30/03/08	DONE
FINAL CORRECTION OF TOOLS	PRINCIPAL INVESTIGATOR	03//04/08	DONE
DISCUSSION WITH RESEARCH ASSISTANTS	PRINCIPAL INVESTIGATOR	4-7TH/04/08	DONE
REVIEW OF DATA COLLECTION TOOLS AND PRINTING	PRINCIPAL INVESTIGATOR	8 <sup>TH</sup> -9 <sup>TH</sup> /04/08	DONE
FINAL EDITING OF PROPOSAL	PRINCIPAL INVESTIGATOR	10-11 <sup>TH</sup> //04/08	DONE
PRESENTATION OF FINAL COPY TO SCHOOL OF PUBLIC HEALTH	PRINCIPAL INVESTIGATOR	12 <sup>TH</sup> /04 /08	DONE
INITIAL TOUR OF STUDY SITE	PRINCIPAL INVESTIGATOR	20 <sup>TH</sup> /04/08	DONE
PRETESTING OF TOOLS	PRINCIPAL INVESTIGATOR & RESEARCH ASSISTANTS	12 <sup>TH</sup> /05/08	DONE
ACTUAL DATA COLLECTION	PRINCIPAL INVESTIGATOR & RESEARCH ASSISTANTS	1-14 <sup>TH</sup> /06/08	DONE
DATA CLEANING & PROCESSING	PRINCIPAL INVESTIGATOR	15-22 /05/08	DONE
ACQUISITION OF DISTRICT COMPETENCES	PRINCIPAL INVESTIGATOR	22 <sup>ND</sup> -30/07/08	DONE
DATA ANALYSIS AND INTERPRETATION	PRINCIPAL INVESTIGATOR	22-15/ 07/08	DONE
PRESENTATION OF DRAFT DESSERTATION TO SUPERVISOR	PRINCIPAL INVESTIGATOR	1 <sup>ST</sup> /08/08	DONE
SUBMISSION OF CORRECTED DESSERTATION TO SUPERVISOR	PRINCIPAL INVESTIGATOR	30 <sup>TH</sup> /08/08	DONE
SUBMISSION OF FINAL	PRINCIPAL INVESTIGATOR	15 <sup>TH</sup> /09/08	DONE

