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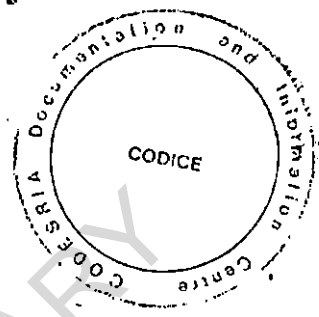
Knowledge, attitude and use of contraceptive methods among unmarried polytechnic students in Ibadan, Nigeria.

September, 1998

KNOWLEDGE, ATTITUDE AND USE OF CONTRACEPTIVE METHODS AMONG UNMARRIED POLYTECHNIC STUDENTS IN IBADAN, NIGERIA



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ABSTRACT

Premarital sexual activity among the youth has been observed to be on the increase worldwide while knowledge and use of contraceptives have been reported to be low. The medical and social consequences of this early onset of sexual activity among the youth are enormous; for example, teenage pregnancy, abortion and its complications, difficult labour, high rates of school dropouts and high rates of divorce and marital disharmony.

A cross-sectional survey was carried out at the Ibadan Polytechnic to determine the knowledge, attitude and use of contraceptive methods among unmarried students. A total of 750 unmarried students comprising 380 males (50.7%) and 370 females (49.3%) resident in the hostels of the polytechnic, Ibadan were studied. Selection was by stratified random sampling technique and data collection was done using a pretested, self administered questionnaire.

The result revealed that contrary to expectation, the awareness of contraceptives was high among the students; (96.4% of the respondents have heard of contraceptive methods). The commonest source of information was the electronic media (30.4%), of which radio constituted 21.6% while television constituted 8.8%. Information obtained from lectures at school constituted only 9.1% of the sources of information on contraceptives. The proportion of respondents who have correct knowledge of the meaning of ovulation was also high (85.6%), (84.5% of males and 86.8% of females). However, knowledge of

the actual time of ovulation as well as a woman's fertile period was low (34.8% and 35.1% respectively). The proportion of students who have had sexual intercourse was found to be 68.8%, the mean age at first sexual intercourse was 16 years for males and 18 years for female students.

Among the sexually active students, 65.9% claimed to be using at least one form of modern contraceptives. The condom was the most popularly cited contraceptive. This was used by 48.8% of sexually active respondents. Other contraceptives used include the pills (9.5%), withdrawal method (6.0%) and injection (1.4%). Association between previous pregnancy experience by female students and their usage of contraceptives is statistically significant ($p < 0.05$). There is also a significant association between parents educational status and students' contraceptive usage ($p < 0.05$) while age group and present class in school have no significant association with students contraceptive usage ($p > 0.05$). The overall attitude of the students towards contraceptive usage was positive. However, a substantial number of students still have some misconceptions about the use of contraceptives while many others were rather inhibited in expressing their opinions.

It was inferred that knowledge and use of contraceptives was high among the students. Implementation of family life education as well as other recommendations offerred in this book will go a long way to improve the reproductive health problems of youths in Nigeria.

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DEDICATION

This work is dedicated to my wife, Grace and my daughters: Faith and Ufedo, for their patience, love and spiritual support throughout the period of this course.

CERTIFICATION

I certify that this work was carried out by DR DANIEL ENEMA OGALA, in the Department of Preventive and Social Medicine, University of Ibadan, Ibadan, Nigeria.

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CHAPTER ONE

INTRODUCTION

1.1 Statement of the problem

Nigeria, like most developing countries in the world has a young population and 59% of the population is under 16 years. This is due to the high fertility rate (ranging from 5.5 in the south to 6.5 in the north) which is one of the highest in the world (UNICEF, 1995).

Adolescent sexuality has become a topical issue in recent times. This is largely due to the medical and social consequences to which these young people are exposed as a result of early onset of sexual activity. In a study of adolescent reproductive health behaviour conducted in five cities in Nigeria, Makinwa-Adebusoye (1991) found that 44% of males and 38% of female adolescents were sexually active. However, contraceptive usage has been observed to be very low among this highly vulnerable group (Nichols, Ladipo, Otolorin and Paxman, 1986). As a result of unprotected sexual intercourse, there is a high rate of teenage pregnancy (Hofferth and Hayes, 1987). Life threatening complications and risks from pregnancy and child birth in young mothers include high maternal, infant and childhood mortality and morbidity and numerous socio-economic problems (Ojengbede, Fabamwo and Otolorin, 1987; Harrison, 1983; Osuhor, 1979).

In an effort to understand the complex nature of adolescent sexuality, research has focussed on areas such as contraceptive utilization and teenage pregnancy. Demographic and sociological studies have shown that age, race, education, income and family structure are associated with sexual activity and the occurrence of teenage pregnancies (Kanter and Zelnik, 1972; Zelnik and Shah, 1983). Psychological studies have also shown that female adolescents who have low self esteem and who feel powerless and alienated and in little control of their lives, are at a higher risk for pregnancy (Zelnik and Shah, 1983). Furthermore, biological factors have been identified to influence pregnancy risk, and girls with earlier physiological maturation initiate sexual activity earlier than their age-related peers (Udry, Talbert and Morris, 1986). Lack of knowledge about human sexuality, beliefs and attitude towards contraceptive methods are also factors that contribute to ineffective use of contraceptives and consequently teenage pregnancy.

1.2 Origin and relevance of the study

This study originated from the author's observation of the increasing number of young unmarried girls, mostly students in secondary and tertiary institutions seeking for termination of unwanted pregnancies in the hospital where he practices. It became so obvious that these students were engaging in sexual intercourse without using any form of contraceptives. Many of them attributed their plight to mistakes which they promised to avoid in future if only they could be bailed out of their present predicament. Those who were turned down on the basis of medical ethics ended up in private clinics or in homes of some quacks. Many of them came to the hospital later with complications from illegal abortion and some eventually died from septicaemia or haemorrhage.

This study is relevant within the context of the Nigeria National Policy on Population (1988). One of the goals of this policy is "to make available suitable family life education, family planning information and services to all adolescents by the year 2000 to enable them to assume responsible parenthood". In pursuit of this goal a study like this will contribute immensely to the successful implementation of an important aspect of the policy. In order to alter any behaviour, it is important to gain foreknowledge of the attributes of the behaviour hence the relevance of this study.

1.3 Justification for the study

Polytechnic education offers the opportunity for young people to leave their homes to live independently in the Polytechnic. For many of them, it is their first time of living alone in hostels. This is a period of intense friendship among both sexes and such relationships more often than not, involve sexual experimentation. In many instances such sexual acts are unprotected and unwanted pregnancy often results. Furthermore, these students have already reached physical and sexual maturity even though they are yet to attain emotional, social and economic maturity. For boys, sexual desires grow strong before they are ready or able to support a family. For girls, the opportunity to go to school, to hold a job or to find a suitable husband may be jeopardised by unprotected sexual activity at an early age. Furthermore, their future reproductive health is put in jeopardy by an unplanned pregnancy which may occur. In addition, there is also the risk of sexually transmitted infections (STIs) including Acquired Immune Deficiency Syndrome (AIDS). Infertility in later life is also a very important reproductive health problem which may result from recurrent reproductive tract infections (RTIs).

Considering the consequences of unprotected sexual activity such as unintended pregnancy, STIs, abortion and its complications, family life education needs to be included in our school curriculum.Before planning such a program, it is quite important to know what the present knowledge and use of contraceptives among the students are. The information thus obtained, should guide the

planners on what should be included in the school curriculum; for example basic reproductive biology, responsibilities of marriage and parenthood, family size and family planning. Although several studies have been done among secondary school students on adolescent reproductive health behaviour, not much has been done among students in tertiary institutions.

It is with these points in mind that this study was being undertaken. The results obtained in this study should increase our knowledge of students' sexual behaviour and of their knowledge, attitude and use of contraceptives.

The information thus gathered will serve as baseline data to family planning agencies, physicians and health care providers as well as policy makers.

1.4 Research objectives

The broad objective is to determine the contraceptive knowledge, attitude and use of contraceptives among students in a tertiary institution in Nigeria.

The specific objectives are:

i To determine the proportion of students who have correct knowledge of human fertility and contraceptives.

ii To determine students' attitudes towards the use of contraceptives.

iii To determine the proportion of the sexually active students who use contraceptives.

iv To determine the contraceptive preferences and source among the students.

1.5 Hypotheses

i There is no gender difference in the level of knowledge of human fertility among the respondents.

ii There is no association between previous pregnancy experience by female respondents and the use of contraceptives.

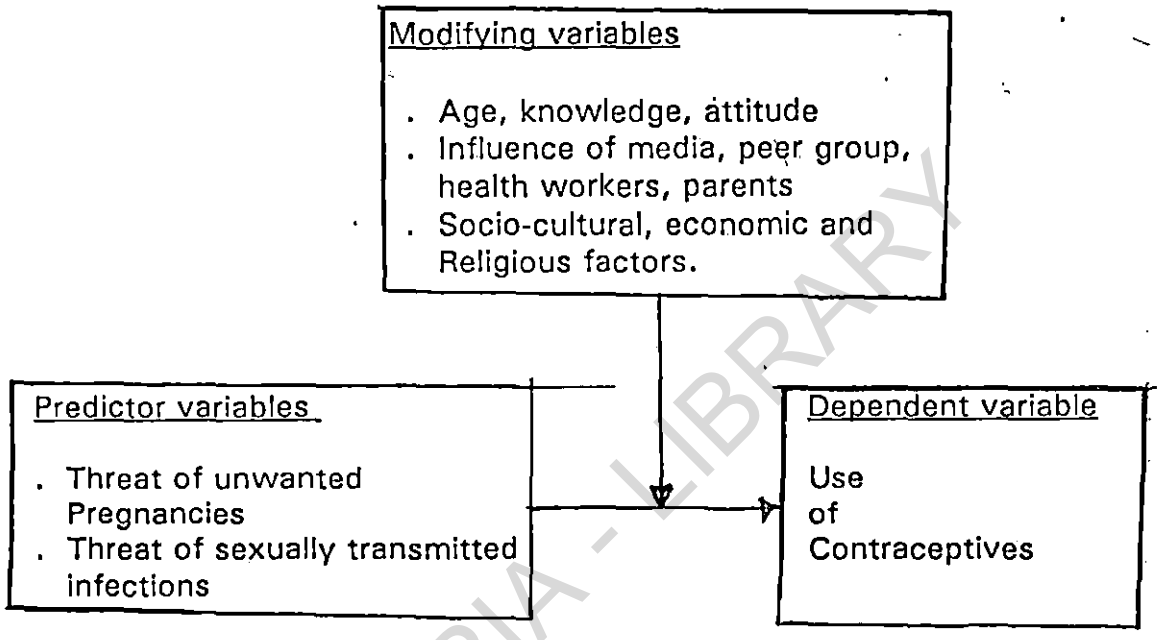
iii There is no association between respondents' age group and the use of contraceptives.

iv There is no association between respondents' present class and the use of contraceptives.

v There is no association between parents' educational status and usage of contraceptives by respondents.

1.6 Conceptual framework

FIGURE 1



This framework is a simplified diagram to explain the factors influencing the students' decision making process in using contraceptives.

The predictor variables consist of the primary motives for initiating the use of contraceptives among the sexually active students. These include the threat of unwanted pregnancy while in school and threat of contracting sexually transmitted infections especially HIV/AIDS. These motives could be positively or negatively affected by the modifying variables such as age, knowledge and attitudes towards the use of contraceptives. Others are influence of the media, peer group, health workers, parents and guardians, socio-economic and religious factors. The impact of these factors will be seen in the text.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Historical background

From ancient times, various methods were attempted to prevent unwanted pregnancy and unwanted births. In the Holy Bible, Onan used coitus interruptus (Genesis 38:8-9) which earned him the expression "Onanism". A review of Greek practices included 12 pages listing abortifaecients plus instruments, injections and medicated pessaries or tampons (Moissides, 1922). At that time, use of abortion and infanticide exceeded the use of contraceptives (Himes, 1970). Hippocrates, in order to discourage the practice of abortion and infanticide, encouraged couples to practice periodic abstinence (Shepens, 1991) while the Rev. Thomas Malthus advised "safe period" approach in his call for greater caution on procreation at about the middle of industrial revolution,1798 (Riches, 1988).

Modern contraceptives came into limelight around the 1960s with the introduction of the steroidal oral contraceptive pills. From then on, a great deal of improvements and discoveries have taken place and today, quite a number of choices are available. The choice of contraceptives however depend on several variables such as parity, side effects, medical history such as diabetes mellitus, hypertension and other cardiovascular disorders.

2.2 Premarital sexual activity

Various studies around the world have shown that there is a high level of premarital sexual activity that exists in our society; for instance in the United States, the proportion of unmarried young women reporting intercourse by age 17 increased from 26% in 1971 to 40% in 1982 (Pratt, Mosher and Bacchrach, 1984).

A survey of young unmarried residents in Ibadan aged 14 to 25 years showed that over 90% of male and female non students were sexually experienced (Nichols et al, 1986). In this same study, approval of premarital sex under any condition was given by 54% of male students and 33% of their female counterparts. Gyepi-Garbarah (1985) reported from Kenya that a large majority of Kenyan females have borne at least one child by the age of 20. In another study in Kenya, it was reported that 51% of the adolescents were sexually active with a mean age at first sexual experience of 13 for males and 14 for females (Ajayi, Marangu, Miller and Paxman, 1991). From Nigeria, Makinwa - Adebusoye (1991) reported mean age at first intercourse to be 17 for females and 18 for males.

In Mexico, a study carried out by Morris et al (1985) showed that 42% of men aged 15-19 years and 83% of men aged 20-24 reported having sexual intercourse while only 8% of women aged 15-19 years and 23% of those aged 20-24 had such experience. Only about one-fourth of the sexually active respondents had used any form of contraceptives at first intercourse.

Several factors account for this early onset and rising premarital sexual activity among the youth. Throughout the world, but especially where rapid urbanization are occurring, young people are breaking away from traditional norms and the restrictions applied by their families and communities (Gale,1985). The mass media, peers and other sources of information compete with parents and traditional leaders for influence among young people; mass media entertainment and advertisements are filled with presentations of sex as glamorous, exciting and risk-free (Furstenberg and Brooks, 1985).

Biological factors to a large extent also influence early onset of sexual activity. Studies have shown that age at menarche has gradually decreased over the last half-century; there is a drop of one to two years in age at menarche (Wyshak and Frisch, 1982; Sogbamu and Aregbesola, 1979; Galang, 1983). In most countries, average age at menarche is now 12 to 14 years (Gray, 1979; Ekele, Udoeyop and Otubu, 1996). Sexual maturation in boys as judged by emission of sperm has been estimated to occur at an average age of 14 years (Hirsch, Shemesh and Modan, 1979). Better nutrition and quicker accumulation of body fat probably account for this decline (Baker, 1985; Frisch, 1994).

2.3 Knowledge of human fertility and contraceptive methods

Lack of knowledge about contraceptives and human fertility can lead to unwanted pregnancy among sexually active people. For example, of more than 100 Kenyan school girls who became pregnant while in school, 65 had never

received information about contraception (Kashiani, 1985). Nichols et al (1986), reported that of the 45% of female respondents aged 14 to 25 who had been pregnant, most of them cited lack of information as the reason for not using contraceptives. Furthermore, sexually active men also cited this reason most often. Other reasons given were concern about safety, objection from partners, non availability of contraceptives and thought that contraceptives were unnecessary (Nichols et al, 1986). In Malaysia, unmarried male and female workers in their early twenties who were interviewed revealed that 60% did not know about family planning methods (Paxman, 1976).

Studies have shown that information about fertility and family planning methods were mostly obtained from friends and the mass media. For example in Mexico, of 82% of young people who had knowledge of contraceptives, 61% had been informed by friends while 30% cited the mass media (Recio, 1993). Makinwa (1991) reported similar findings in Nigeria; 46% of male and 38% of female respondents mentioned "friend" or school mate as their source of information. In Ivory Coast, among 700 secondary school students interviewed, 53% mentioned friends as their source of information (Boloko and kouame, 1981).

Myths and misconceptions about fertility and contraception are also widespread. In the Phillipines for example, it is reported that young women often try to prevent pregnancy by douching, by standing up after intercourse or by taking oral contraceptives only on days that they have intercourse (Galang, 1983).

In Nigeria, some girls take large quantities of vitamin pills after intercourse thinking that vitamins will prevent pregnancy (Ezimokhai, Ajabor, Jackson and Izilien, 1981). Many young people believe that pregnancy cannot occur if they are very young or having sexual intercourse for the first time or infrequently (Zabin and Clark, 1981). Also many are mistaken about the fertile period of the menstrual cycle and few realize that the chances of pregnancy may be as high as one in three if coitus occurs at the time of ovulation (Nichols et al, 1986; Marshal, 1971). Among almost 700 black male secondary school students in the USA, only 10% know that a woman's fertile period occur roughly midway between menstrual periods (Clark, Zabin and Hardy, 1982). In Nigeria only 33% of females and 17% of male respondents knew about the "safe period" (Makinwa, 1991).

2.4 Adolescents' attitude and use of contraceptives

The young unmarried woman is constantly under conflicting social pressures. On the one hand the environment promotes sexual involvement; the mass media, her boy friend and even some traditional practices encourage pregnancy before marriage (Jones, Forest and Goldman, 1985). On the other hand, social values urge a women to remain chaste both in deed and in thought until marriage. She is likely to hear from her parents, teachers and religious advisors that sex is good only in marriage and that abstinence and passivity towards sex are valuable feminine traits. These conflicting pressures may make a young woman feel uncertain or guilty. She may be unable to make a firm

decision to say no to sex or to plan in advance to use contraceptives, if she eventually succumbs to sex (Jones et al, 1979). She may not want to think of herself as the kind of girl who prepares to have sex, she may equate using contraceptives with promiscuity (Greydamus, 1983).

Cultural values and social pressures affect young men too. Most societies maintain a double standard about sexuality; condoning or even promoting premarital sex for men while condemning it for women. In some cultures, men are encouraged to have sex early to "prove their manhood" (IPPF, 1983). Furthermore, many young men are worried about homosexuality (Lewis, Ragoonanan and Saint-Victor, 1984). They think that getting a girl pregnant is a proof of hetero sexuality and there is no need to use contraceptives (Lewis et al 1984). Moreso, the stigma of pregnancy out of wedlock and the responsibility for raising the child fall entirely on the girl. As a result, many young men take little responsibility for avoiding unwanted pregnancy. Some object to their partners' using them while others simply do not think or discuss about contraception at all (Bacchrach, 1984). In a study in USA, over 70% of sexually active young girls reported having used contraceptives at some time but only 34% said they used contraceptives regularly (Zelnik, 1979). In another study, half of the girls interviewed thought that condoms broke easily and were ineffective (Reichelt and Werley, 1975).

The second most often cited reason by young people in Nigeria for not using contraceptives is concern about safety (Michols et al, 1986). In Campina

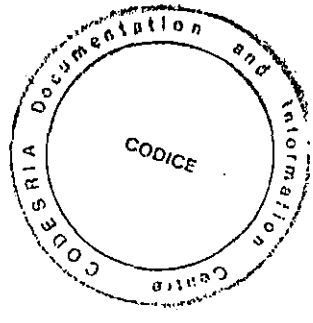
Brazil, 88% of young unmarried women giving birth in a teaching hospital had never used contraceptives for fear of side effects (Zabin and Clark, 1981). Over 70% of girls interviewed at a secondary school in Benin city, Nigeria thought that contraceptives would harm their health and cause infertility; 30% of the respondents had had at least one illegal abortion (Oronsaye and Odiase, 1983).

Limited access to contraceptives is one of the factors affecting contraceptive usage among young people. For example in Indonesia, there is a law prohibiting prescription of contraceptives to anyone who is not married or who is less than 17 years old (Paxman, 1984). In most countries laws have been modified to make it less difficult for sexually active young people to prevent unwanted pregnancy. For instance in Hong Kong, Thailand and Nigeria, contraceptives are now available for every one regardless of age or marital status (Paxman, 1984). Furthermore, in China, Costa Rica and the Phillipines, sex education is now required in schools. However young people still feel uncomfortable to utilize family planning services for fear of meeting their mothers and family friends in the clinic; for instance in the USA, 43% of girls who came to family planning clinics had delayed coming after they became sexually active said they feared that their parents would find out (Zabin and Clark, 1981). In many countries including Nigeria, young people can buy contraceptives in stores and pharmacies but with little or no income of their own, many of them cannot afford it.

2.5 The risks of teenage pregnancy

Pregnancy in very young women even when wanted is more dangerous to both the mother and the child than pregnancy at a later age. Health risks are higher before age 17 (Harrison, 1983). These young women face greater risks of obstetrics complications and are more likely to die during pregnancy and child birth than women in their 20s. The risks are greatest for the very poor who have the worst diets and the least opportunity for antenatal care (Tietze, 1977; Makinson, 1985).

In Jamaica and Nigeria it has been found that women younger than 15 are four times more likely to die during pregnancy and child birth than women aged 15 to 19 years (Harrison, 1983; Williams, 1973). Even in developed countries, the youngest women are at a striking disadvantage. In the United States for instance, in 1977, the maternal death rate among mothers under age 15 was 2.5 times higher than the rate among mothers aged 20-24 (AGI, 1981). In Nigeria, unwanted pregnancy was found to be 15.4% of all those adolescents that had ever been pregnant (Makinwa, 1991). Another study carried out in Ibadan, Nigeria noted the incidence of teenage pregnancy to be 15.1% (Onadeko, Avokey and Lawoyin, 1996).



2.51 Consequences of teenage pregnancy

The major life threatening complications for very young mothers are pre eclampsia and eclampsia, Iron deficiency anaemia and cephalopelvic disproportion. Pre eclampsia has been described as a "special hazard" of pregnancy among the very young because it so often occurs among adolescents and women having their first child (Pauls, 1974; Neutra, 1973). Harrison et al (1983) found out that 17% of pregnant young women studied in Nigeria aged 14 or younger developed ecclampsia; 16% among the 16 year old and only 3% among women aged 20-24. In England and Wales between 1973 and 1975, Preecclampsia and ecclampsia accounted for 20% of maternal deaths in 16-19 year old women (Tomkinson, Turnbull and Robson, 1979).

Anaemia is common in the first four years after menarche even among those who are not pregnant (ACOG, 1979). Along with high growth rate around the time of puberty, the beginning of menses and poor nutrition can deplete the body's iron reserves (Jacobson and Heald, 1983). The prevalence of iron deficiency anaemia during pregnancy in young women varies widely; ranging from about 7% in the United States to over 30% in Africa (Efiong and Banjoko, 1975; Arkutu, 1978 and Hutchins, Kendall and Rubino, 1979). Severe anaemia in pregnancy can lead to premature delivery; maternal or foetal death or both. Cephalopelvic disproportion (CPD) can prolong or even prevent vaginal delivery. If a caesarian section can not be performed on time, uterine rupture can occur leading to maternal and foetal death.CPDoccurs often in very young mothers since

pelvic growth is not usually complete until several years after menarche (Moerman, 1982). Antenatal care can markedly reduce pregnancy related morbidity and mortality and complications among all women especially very young women. For example, in a study involving almost 22,000 Nigerian women, death rate among mothers aged 14 or younger who had received good antenatal care was 500 per 100,000 live births whereas the rate in mothers of the same age who had not received care was 4,300 per 100,000 live births (Harrison, 1983). However adolescents are likely to be late in obtaining antenatal care for several reasons; she may be ashamed of her pregnancy and be afraid that her parents will find out, she may refuse to acknowledge the pregnancy or simply not realize that she is pregnant (Russell, 1983).

2.52 Socio-economic consequences of early motherhood

For very young mothers, the risks of child bearing do not necessarily end with delivery. As the caribbean researcher *Tirbani Jagdeo noted:..... teenage pregnancy is not simply a matter of numbers and medical consequences. It is also a matter of human possibilities, of life chances. Teenage pregnancy stymies both the personal and social development of young women ..... Young women end up paying dearly in later life for mistakes made when they were still children* (Jagdeo, 1985). Compared with a woman who delays child bearing until her 20s, the woman who has her first child before age 17 is likely to obtain less education, have a lower paying job and less income or be divorced or separated from her partner.

For a young girl in school, an unwanted pregnancy can be a catastrophe. In developing countries, school girls who become pregnant almost always leave school whether they are married or not (Mckay, 1984). In a study in Nigeria, of 127 pregnant school girls, 52% were expelled from school, 20% were "too ashamed to return", 15 % could not return because their parents refused to pay their tuition fees and 8% were forced to marry (Oronsaye, Ogbeide and Unuigbe, 1982). In Kenya, pregnancy forces about 10% of the girls enrolled in secondary schools to drop out each year (Khasiani, 1985). About 80% of Swazi girls who drop out of school leave because of pregnancy (Gule, 1985).

In developed countries young mothers are often poor because they are not married and they have no husband to help support the family. For instance, in the USA, women giving birth before age 20 whether married or not at the time, are two to five times more likely to be separated from their partners or divorced within five years than women giving birth in their 20s (McCarthy and Menken, 1981). A survey in Guatemala found that in peri urban areas, women who gave birth before age 17 were living in poorer homes and had less work experience than women who gave birth later (Engle, 1978). In some instances, young unmarried mothers may be forced to turn to prostitution to support themselves and their children (Jean-Bart, 1985).

Young men may also suffer educational and economic consequences from early fatherhood. Young fathers are less likely to graduate from high school or college than their class mates. In a longitudinal study conducted in the USA

comparing young men of similar socio-economic status, race and academic ability, those who became fathers before age 19 were one-third less likely to graduate from college than their counterparts who had children after age 24 (Card and Wise, 1978). With little education, young fathers tend to find only low-paying jobs. Since many young men evade the responsibilities of early fatherhood, on average, they suffer fewer ill effects than the young mothers (Card, 1981).

Unwanted pregnancy does not only affect the health of the young mothers, it also has severe ill effects on the child:

2.53 Health consequences of teenage unwanted pregnancy for the child

Child bearing at a very early age can be a handicap for the child as well as the mother; the infant of a teenage mother is more likely to be of low birth weight and to die. Low birth weight is a major cause of infant mortality; many studies in developed and developing countries report higher rates of low birth weight (LBW), prematurity and neonatal mortality in children of young mothers than in children born to women aged 20 - 29 (Larson and Svanberg, 1983; Lawrence and Meritt, 1983; Harrison, 1983 and Onadeko et al, 1996). In a study of teenage pregnancy and its outcome in Ibadan, Nigeria, Onadeko et al (1996) found that 20.7% of the infants born to teenage mothers weighed less than 2.5kg whereas only 11.1% of the infants born to mothers aged 20 to 29 years old had LBW. McAnarney (1985), reported a prevalence of 28.8% LBW babies born to mothers aged 20-29 years. Harrison (1983), from a study conducted in Northern Nigeria

reported that nearly one in every five infants born to mothers aged 15 or younger died during the perinatal period (counting both still births and deaths in the first 7 days of life). This was about 1.6 times the rate for infants of mothers aged 20-24. The higher risks of serious complications and death among children of adolescent mothers persist through early childhood. In almost three quarters of 40 developing countries with WFS data, mortality rates between ages one and two were higher for children born to adolescent mothers than for children born to mothers aged 20 to 29 in 13 of the 40 countries, they were at least 20% higher (Rutstein, 1984). The children of young mothers tend to lag behind other children in cognitive development and school performance and they may have more problems interacting with other children (Lawrence and Meritt, 1983). Furthermore, children of adolescent mothers were more likely to be involved in accidents probably because they are less educated and poor and less likely to supervise their children properly than older mothers (Taylor, Wadsworth and Butter, 1983). Even as adolescents, these children may face problems. Daughters of young mothers are more likely to become young mothers themselves (Presser, 1978).

In order to avoid unwanted pregnancy and all the health and socio economic complications discussed above, adolescents resort to induced abortion which in most countries of the world is still illegal.

2.54 Illegal abortion

The extent of illegal abortion is not exactly known.World wide, close to 50 million abortions have been induced annually since 1970s (Tietze,1986).Most abortions are induced because the pregnancy is unintended and unwanted.Abortion is illegal in most developing countries including Nigeria; for instance in the whole of Africa, abortion is legal only in the Zambia and Tunisia (Tietze, 1979). In Nigeria, abortion is permitted only to save a woman's life.

Hospital statistics from cities in Kenya,Liberia,Mali,Nigeria and Zaire show that 38 to 68 percent of women hospitalized with abortion complications were 19 years or younger(Woods etal,1985;Aggarwal and Mati,1982). In a study in Nigeria involving 530 school girls, 30% said that they had induced abortion (Oronsaye and odiase, 1983). In Kenyatta National Hospital, Kenya between 1972 and 1977,18% of maternal deaths were directly related to illegal abortion (Makhoka,1980). In Ghana, 46% of 160 women aged 19 years or younger giving birth at Korle-Bu hospital reported that their pregnancy had ended in an induced abortion (Lamptey, Janowitz and Smith, 1985).

Young women are at greater risk of severe complications because they often delay abortions until well into the second trimester (Greydamus, 1983). Globally complications of unsafe abortion affect hundreds of thousands of women each year and account for as many as 100,000 deaths annually (about 2 in 10 maternal deaths), mainly in poor countries where abortion typically remains illegal (Andrzej, Malcom and Allan, 1996).

In Africa, abortion occurs mostly among young unmarried students who turn to abortion because they did not use contraceptives and pregnancy is a strong reason for expulsion from schools (Population Reports, 1980). Other non fatal but serious complications of unsafe abortion are sepsis, chronic reproductive tract infections and subsequent infertility (WHO, 1978; Barsy et al, 1963).

2.55 Sexually transmitted infections (STIs)

Another serious consequence of unprotected sexual intercourse is sexually transmitted infections. Both young men and women are at risk of contracting STIs if they are sexually active unless they use condoms or spermicides which give some protection against these infections (Sherris, Lerison and Fox, 1982). The long term consequences of STIs are serious particularly for young women. Gonorrhoea and chlanmydial infections in particular cause reproductive tract infections (RTIs), irreversible damage to the fallopian tubes, ectopic pregnancy and infertility. Thus a young woman may be rendered sterile before she has ever married or had a child. In men, inflammation and scarring of the epididymis and vas deferens partially or completely block sperm passage. This can also lead to infertility in men.

Acquired Immune Deficiency Syndrome (AIDS) is caused by the HIV virus type I and II. It is largely transmitted through sexual intercourse. 60% of new HIV infections occur in the 15 to 24 years age group and 2/3 of all new cases of HIV infections are now occurring in Africa (UNICEF, 1995).

2.60 Review of contraceptive choices available

A contraceptive is a device, drug or method used to prevent conception (Churchill's Medical Dictionary, 1989). The introduction of birth control pills and improved Intra uterine Devices (IUDs) produced a virtual revolution in contraceptive technology. For the first time in the history of human reproduction, contraceptive methods which were comparatively easy and convenient to use as well as reversible, highly effective and relatively safe became available giving women almost total control over the timing of pregnancy (Population Reports, 1982).

Contraceptive methods in practice presently are broadly classified into six major classes. These are natural methods, steroidal contraceptives, intra uterine devices (IUDs), barrier methods, spermicides and voluntary sterilization (Population Reports, 1996).

The Natural methods periodic abstinence, Billings Calender method, withdrawal method or Coitus interruptus and lactational amenorrhea method (LAM).

Steroidal contraceptives consists of the combined oral contraceptives (the pill), Mini pills, Injectables (Depo-provera, Noristerat and Cyclofem), Norplant and Uniplant. Intra Uterine Devices (IUDs) include Cu - T380A, Progestasert and Lippes Loop. Barrier methods include the condom, vaginal diaphrams and corvical caps.

Spermicides include vaginal foaming tablets, gel or cream and vaginal sponge while voluntary sterilization include bilateral tubal occlussion for women and vasectomy for men.

A brief review of some of the methods are as presented below, especially the modern methods that may be considered for young people. Voluntary sterilisation is not meant for young people so it will not be reviewed in this text.

Everyone who makes informed choice about a contraceptive method is weighing the potential health benefits and risks against the consequences of an unwanted pregnancy. For each method, the risk-benefit calculation varies from individual to individual and from place to place. For example in Western Countries, advances in obstetrical care have overcome most health risk associated with child bearing and safe legal abortion has almost eliminated abortion-related mortality (Population, 1985). Thus for individual women in Western countries, the health risks of the pill or IUD although in most cases minor, may weigh more heavily in the choice of a contraceptive method.

In Africa, Asia and Latin America, the complications constitute a leading cause of death among women of reproductive age (Population, 1985). In these settings the health benefits of contraception regardless of the method, almost always out weigh the risks.

Barrier methods

These methods act by preventing penetration of sperm into the uterus thereby preventing fertilization of the ovum (female egg). Latex condoms are available for use by men at every act of coitus. When used properly they are effective for protection against unwanted pregnancy and sexually transmitted infections (Bullough and Bullough, 1991). Other contraceptives in this group for females include vaginal diaphragm, cervical cap and the female condom. Their major draw back is the inconvenience in wearing them before each coitus.

Spermicides are powerful chemical substances which kill the sperm and ideally should be used with condoms and other barrier methods. It provides extra protection if a condom bursts or slips during intercourse. Although not as effective as the condom when used alone, it provides some protection against unwanted pregnancy and it is under the woman's control.

Hormonal methods

Hormonal methods consist of the synthetic female hormones, oestrogen and progesterone. They act mainly by suppressing ovulation thereby preventing fertilization. The combined oral contraceptives (The pill) contain a synthetic oestrogen and a synthetic progesterone in different combinations, while the mini pill contain only a synthetic progesterone. The pills are required to be taken daily in order to make the most effective use of it. WHO does not recommend restriction on the pill on the basis of young age (WHO, 1995). Like the condoms, the pill and other hormonal methods do not have effect on future fertility (Liskin

and Rutledge, 1984). Young people may have problem with remembering to take the pills on daily basis and this is a serious drawback.

Emergency postcoital contraception is now possible using the combined oral contraceptives (Yuzpe, 1985). However, postcoital oral contraception is not a substitute for other contraceptive methods but it can be very useful for preventing pregnancy when a woman has been coerced or raped, had an emergency sex when no other contraceptives was available or had a condom burst.

Injectable hormonal contraceptives contain only synthetic progesterone. Injections and are required only every three months for Depo-Provera and every two months for Noristerat. They are convenient and provide privacy but require a trained personnel to give the injection (Population Reports, 1995).

Norplant implants consists of small hormone releasing capsules usually six in number which when inserted under skin can prevent pregnancy for a period of five years (Population Reports, 1992). The major set back with norplant is that it requires highly trained staff for its insertion and removal.

All hormonal contraceptives cause changes in menstrual cycle and do not offer any protection against sexually transmitted infections.

Intra uterine Devices

These are devices inserted into the uterine cavity and they prevent pregnancy by impeding sperm transport to the site of fertilization thus preventing fertilization. They also cause inflammatory reactions in the uterus thereby

preventing implantation of the fertilized ovum (Population Reports, 1995). The earliest forms were Lippes Loop and Marguilles Spiral which appeared in the 1960s. The most widely used IUD today is the copper containing IUDs especially T Cu-380A. IUD are long-acting contraceptives but they are not recommended for unmarried women who are at higher risks of STIs. Moreso, IUDs may cause increased menstrual bleeding and spotting and menstrual cramps leading to higher expulsion rates in young women.

2.70 Theoretical concepts relevant to contraceptive usage

Karls and Cobb (1966) identified three types of health related behaviour: Behaviour related to prevention of disease or a health problem (Health behaviour), behaviour once symptoms appear (Illness behaviour) and behaviour following diagnosis (Sick role behaviour).

Contraceptive usage is a preventive health behaviour aimed at preventing unwanted pregnancy and sexually transmitted diseases. The two theoretical concepts that will be reviewed are: the Health Belief Model (HBM) and the Adoption -Diffusion Theory.

2.71 The Health Belief Model (HBM)

The health belief model is a theoretical construct that attempts to portray decision making which leads to recommended health action. It was developed in an attempt to understand the widespread failure of people to accept disease

preventive measures or screening test for the early detection of asymptomatic disease (Rosenstock, 1974). The model states that an individual will take action to avoid disease or health problem if he/she feels threatened. Disease threat is composed of two conditions: First the person must perceive that he is susceptible. This implies that he believes that he personally has a reasonable chance of acquiring the disease condition. Perceived severity is the second component of disease threat. This implies that the individual should perceive that the occurrence of the disease would have a moderately severe impact on an aspect of his life. This perception varies with the degree of seriousness being seen from two points of view. One can look at it from the physical perspective, that is the impact of the problem on personal well being i.e is there a chance of pain, suffering, deformity, disability or even death?. Social consequences is the second perspective. One is concerned about the effect of the condition on work, family life and social relationships.

The other dimension to the model is the perceived barrier which forms the other side of cost-benefit analysis of the proposed action. This takes place within the individual. She weighs the effectiveness of the action with the expenses likely to be incurred by it, for instance whether there would be side effects from using contraceptives or whether contraceptives will always be available, accessible and affordable. The combined levels of susceptibility and severity provide the energy or force to act and the perceived benefits (less barriers) provide the preferred path of action.

Some stimuli may also be necessary to trigger the decision making process. These are called "Cues to action". Cues might be internal, for example, internal motivation to use contraceptives to prevent pregnancy and sexually transmitted disease; or external such as mass media advertisements on contraceptives or interpersonal interactions with friends, teachers and health workers.

Finally, the model assumes that modifying variables such as age, sex, knowledge, attitude and beliefs might also affect health related behaviour. Knowledge of all these factors will enhance a better understanding as to why some students who are sexually active use contraceptives while other do not.

2.72 Adoption process

Rogers (1962) stated that the innovation-decision process is the mental process through which an individual passes from first knowledge of an innovation to a decision to adopt or reject and to confirmation of this decision. Rogers and shoemaker (1971) stated that innovation decision making takes place within the mind of an individual. They went further to present five stages of the adoption process as postulated by a committee of rural sociologists in 1955:

(a) Awareness: The individual learns of the existence of the new idea but lacks information about it. For example a student may hear about contraceptives through media advertisements or friends without detailed information.

(b) Interest: The individual develops interest in the innovation. As a result of interest, he may seek further information; for example from health care providers or purchase books to read more about the innovation.

(c) Evaluation: The individual applies the new idea to his/her present and anticipated future situation and decides whether to try it or not. In this case a student may think of consequences of getting pregnant while still in school, she may then try to use contraceptives during coitus.

(d) Trial: The individual applies the new idea on a small scale in order to determine its utility in his/her situation. At this stage a student may purchase some few condoms and try to use them during subsequent coitus to determine whether it is effective in preventing unwanted pregnancy or not.

(e) Adoption: At this stage, the individual uses the new idea regularly when there is need for it. For example, if a student who has tried some contraceptive discovered that they were effective, he/she is likely to continue using them while in school in order to prevent pregnancy or STIs.

Adoption of innovation however does not occur by all people at the same time in a population. Four groups of adopters have been identified: Innovators, early adopters, early majority and late majority or laggards.

The primary innovators are the first group to adopt a new idea in the community. They are usually learned, well to do and are opinion leaders and socialites. The early adopters learn from the primary innovators. They are the class of people that attend meetings regularly and are also learned. The early majority belong to the middle class while the late majority or laggards belong to the poorest in the society, they are the last to adopt any new idea (Olaseha, 1996).

CHAPTER THREE

METHODOLOGY

3.1 Study area

The study was carried out at the North and South campuses of the Polytechnic, Ibadan located in Ido Local Government Area of Ibadan City. Ibadan is the capital city of Oyo State located in the South Western part of Nigeria.

The polytechnic admits male and female students for various courses leading to the award of National Diploma (ND) and the Higher National Diploma (HND). The school has five faculties namely: Commerce and Communication Sciences, Education (Technical), Environmental studies, Engineering and Science. However, data on the distribution of students by their faculties was not available from the Polytechnic authority. Male students are accommodated in three halls:- RAMAT, UNITY and ORISUN while the female students are accommodated in OLORI HOSTEL COMPLEX composed of six blocks and one ANNEX. Each room officially accommodates two students.

Out of a total of 5, 629 students registered for the 1995/96 session, only about 3,300 students representing 58.6% of the students were accommodated within the hostels. The male hostels accommodated 1,800 students while the female hostels accommodated 1,500 students.

3.2 Study design, sampling technique

This study is a descriptive, cross-sectional survey. Respondents were randomly drawn from both sexes, all the faculties, all levels of study, all ethnic and religious groups on the campus. Since the hostels contain this diverse groups, respondents were selected from the hostels.

A previous survey in Nigeria (Makinwa - Adebusoye, 1991) showed that the prevalence of contraceptive usage among male adolescents was 42% and 39% for females. Based on this information a sample size was calculated using the formula:

Za^2Pq/d^2 (Olawuyi, 1996)

Using this formula, the minimum sample size for males was 374 while that for females was 366 (see appendix B for details). In order to have a good representation, 380 males and 370 females, making a total of 750 students were selected for the study.

TABLE 1

SELECTION PROCEDURE FOR MALE RESPONDENTS

Hall	No of blocks	Total No of Rooms (%)	No of Rooms selected (%)	Total No of students (%)	No of students selected (%)
RAMAT	4	283 (31.4)	60 (31.6)	566 (31.4)	120 (31.6)
UNITY	4	285 (31.7)	60 (31.6)	570 (31.7)	120 (31.6)
ORISUN	5	332 (36.9)	70 (36.8)	664 (36.9)	140 (36.8)
TOTAL	15	900 (100)	190 (100)	1800 (100)	380 (100)

TABLE 2

SELECTION PROCEDURE FOR FEMALE RESPONDENTS

Hall	No of Blocks	Total No of Rooms (%)	No of Rooms selected (%)	Total No of Students(%)	No of Students selected (%)
OLORI	6	628 (83.8)	155 (83.8)	1256 (83.8)	310 (83.8)
ANNEX	1	122 (16.2)	30 (16.2)	244 (16.2)	60(16.2)
TOTAL	7	750 (100)	185 (100)	1500 (100)	370(100)

The selection of respondents was done using the stratified sampling technique according to sex, halls of residence and blocks within the halls. Simple random sampling of the rooms in each block was done using the register as the sampling frame and a table of random numbers to select the rooms. Two students in each of the selected rooms were given the questionnaire to fill and return to the research assistant. The choice of two students selected per room for the study was based on the institution's policy of two students officially allocated to a room. The number of students selected per hall was in proportion to the students' population within the hall. This is as summarised in tables 1 and 2.

3.3 Instrument design and procedure for data collection

The study was carried out using self-administered, structured questionnaires (Appendix A). All questions were written in English language, most of them were pre coded while a few others were open ended questions. The questionnaire was divided into three sections: Section A contains questions on demographic variables such as age, sex etc and comprises questions 1 to 10; Section B contains questions on knowledge of human fertility and contraception which comprises questions 11 to 28 while Section C contains questions on attitudes towards the use of contraceptives (questions 29 to 34). questions on attitudes addresses such attitudinal issues as safety, effectiveness, acceptability and misconceptions about the use of contraceptives. Questions 29 to 31 reflects positive attitude while questions 32 to 34 reflects negative attitude.

The questionnaire was pretested among 50 students of the University of Ibadan and necessary amendments were made before administering to the respondents.

After explaining the purpose of the research, assurance was given of anonymity of responses and the consent of the respondent was obtained. Questionnaires were administered in the evenings between 5th October 1996 to 28th November 1996. The questionnaires were administered by the author, assisted by student hall representatives. The completed questionnaires were collected on the same day and the response rate was 100%.

3.4 Method of data analysis

The data were analyzed on the IBM-PC/XT hardware using the program of the statistical package for the Social Science (SPSS) software. Summarization of data was done using frequency tables, bar charts and pie charts. Statistical tests of significance were done using the chi-square (X^2) tests.

3.5 Ethical considerations

Approval was sought from the Rector of the Polytechnic to conduct the study and it was granted (see appendix D). Respondents' privacy and confidentiality was guaranteed by anonymity of responses and those who still did not want to participate were left alone.

3.6 Limitations of the Study

1. Respondents' attitudes: A rather high rate of non-response to some sensitive questions was observed. This may be due to fear of being detected despite the assurance of anonymity given at the beginning of the study.

2. It was not possible to observe contraceptive practices among the respondents therefore, the results are based on their asserted contraceptive practices.

CHAPTER FOUR

RESULTS

The results presented in this chapter fall under the following subheadings: Demographic characteristics, Knowledge of human fertility, Knowledge of contraceptive methods, Sexual behaviour, use of contraceptives, source of contraceptives and Students' attitudes towards contraceptive usage.

4.1 Demographic characteristics

A total of 750 students were studied. 380 (50.7%) of them were males while 370 (49.3%) were females (see tables 1 and 2 in Chapter three please). The overall mean age of the respondents was 22 years (SD=3.08). The majority of the respondents were in the 20-24 years age group (55.7%) while respondents in the adolescent category (15-19 years) constituted 20.9% (fig 2).

FIGURE 2

Distribution of respondents by their age group

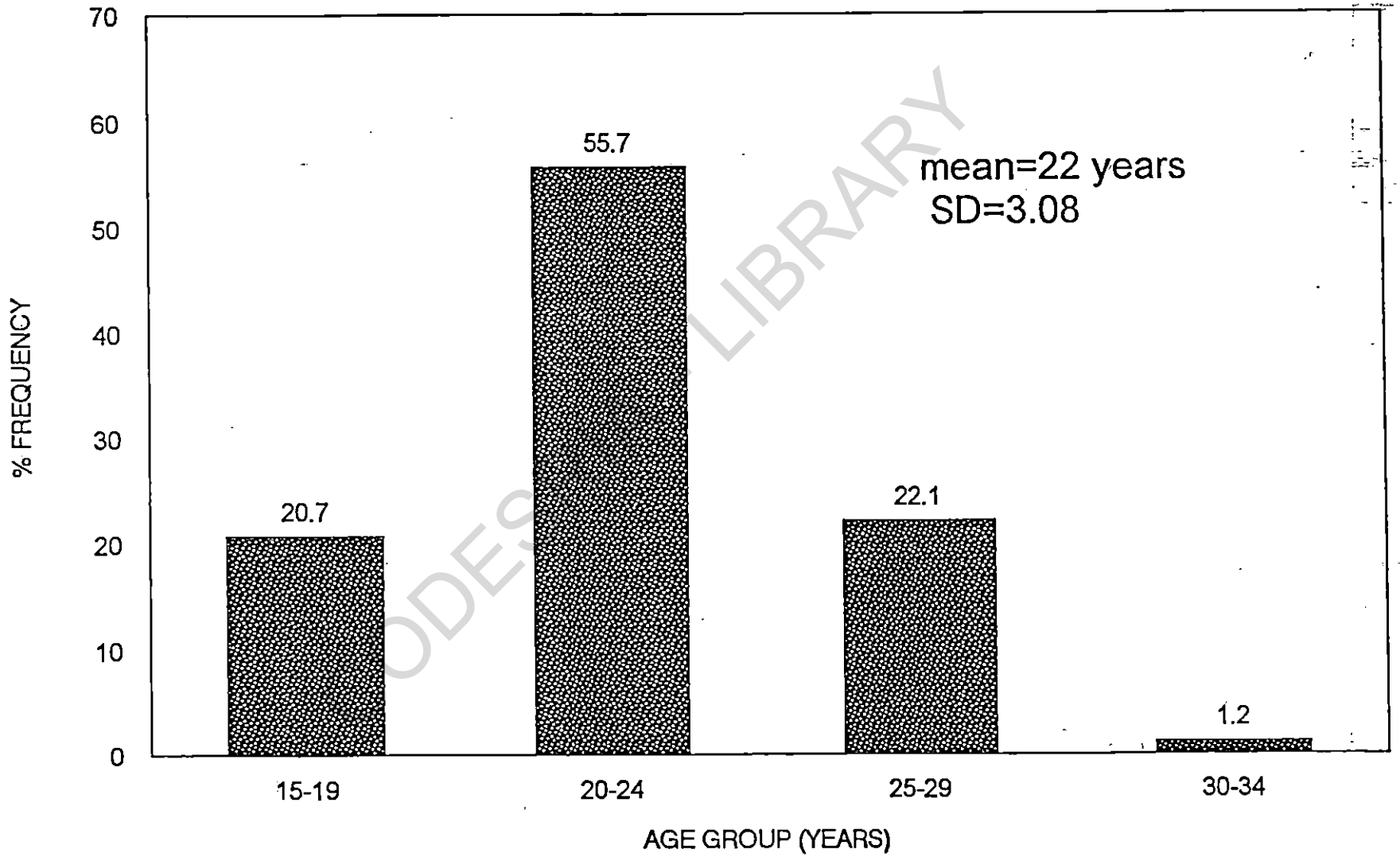


TABLE 3

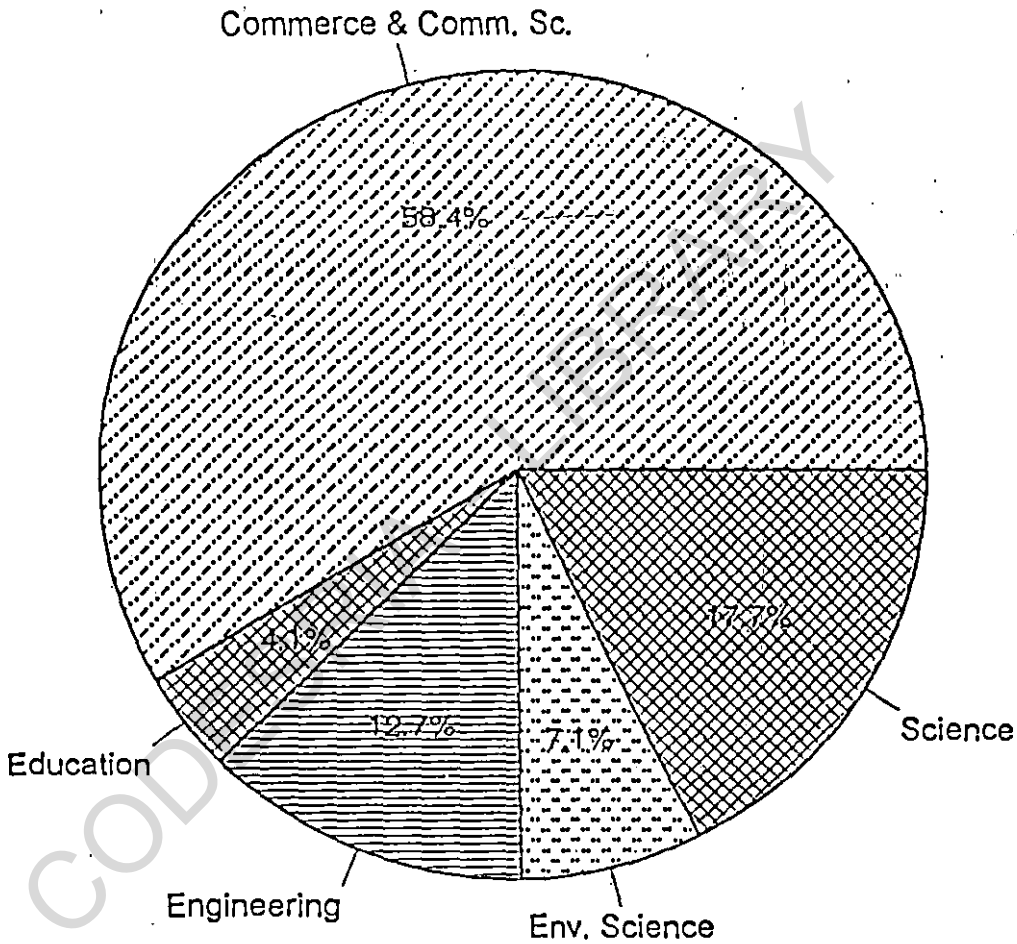
Distribution of Respondents by Ethnic groups

Ethnic group	Frequency	Percentage frequency
Yoruba	695	92.7
Ibo	35	4.7
Others	20	2.6
Total	750	100

As expected from the geoethnic location of the institution, the majority of the respondents were Yorubas (92.7%) followed by the Ibo (4.7%). Other tribes such as Edo, Urhhobo, Hausa constituted only 2.6% (Table 3).

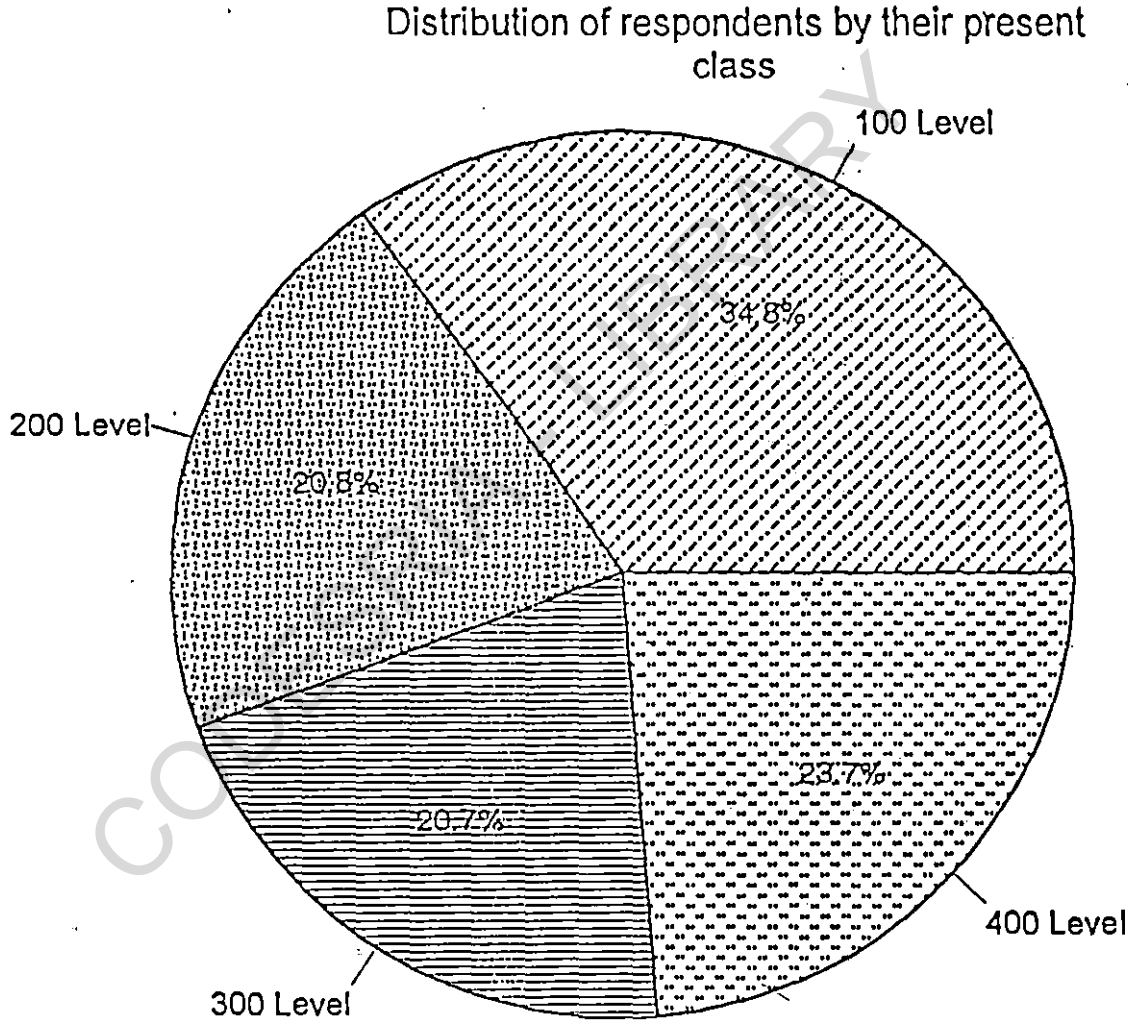
FIGURE 3

Distribution of respondents by their faculty



Most of the respondents were from the Faculty of Commerce and Communications Sciences (58.4%), 17.7% were from the Science Faculty, 12.7% from Engineering, 7.1% from Environmental studies and 4.1% from Education (Fig. 3)

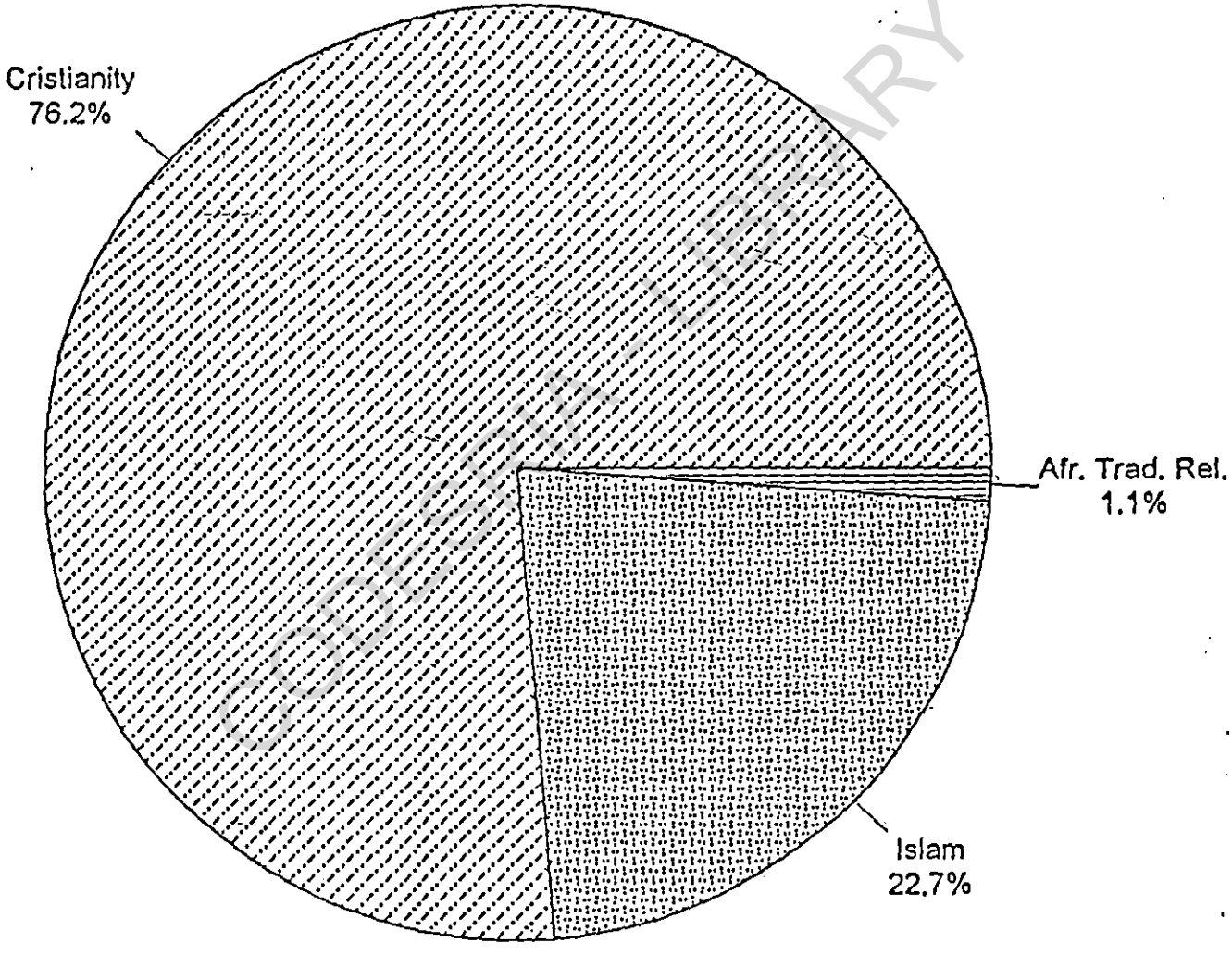
FIGURE 4



The result of the distribution of respondents according to their present class in school revealed that first year (100 level) students were the majority (34.8%) followed by 400 level (23.7%), 200 level (20.8%) and 300 level (20.7%). This is shown in figure 4.

FIGURE 5

Distribution of respondents by their Religion



The majority of the respondents were Christians (76.3%), 22.7% were Moslems while 1.1% practice African Traditional religion (Fig. 5).

TABLE 4

Distribution of Respondents by their Fathers' level of Education

Father's level of education	Frequency	Percentage Frequency
Illiterates	80	10.7
Primary education	52	6.9
Secondary school education	136	18.1
N.C.E. or equivalent	71	9.5
University graduates	411	54.8
Total	750	100

Educational status of parents showed that majority of the respondents have literate parents; 54.8% of the respondents said their fathers were University graduates while only 10.7% of them said their fathers were illiterates (Table 4).

TABLE 5

Respondents' Mothers' level of Education

Mother's level of education	Frequency	Percentage Frequency
Illiterate	115	15.3
Primary School	101	13.5
Secondary School	170	22.7
N.C.E	151	20.1
University	213	28.4
Total	750	100

For mothers' level of education, 28.4% of the respondents had mothers with University education, 20.1%, N.C.E. Secondary School 22.7%, primary school 13.5% while 15.3% had illiterate mothers (Table 5).

4.2 Knowledge of human fertility

TABLE 6

Respondents' knowledge of the meaning of ovulation by sex

Response	Males(%)	Females (%)	Total (%)
1. When matured female eggs are released from the ovary	321(84.5)	321 (86.8)	642 (85.6)
2. Monthly bleeding	19 (5.0)	9 (2.4)	28 (3.7)
3. Vaginal discharge	4 (1.0)	11 (3.0)	15 (2.0)
4. All of the above	27 (7.1)	24 (6.4)	51 (6.8)
5. No response	9 (2.4)	5 (1.4)	14 (1.9)
Total	380(100)	370 (100)	750 (100)

Table 6 summarizes the responses on the meaning of ovulation. Only 85.6% of the respondents gave the correct answer that ovulation means when matured female eggs are released from the ovary.

TABLE 7

Statistical Test of Gender relationship in Knowledge of ovulation

Meaning of ovulation	Male (%)	Female (%)	Total (%)
Correct	321 (84.5)	321 (86.8)	642 (85.6)
Incorrect	59 (15.5)	49 (13.2)	108 (14.4)
Total	380 (100)	370 (100)	750 (100)

$X^2 = 0.61$

Df = 1

P> 0.05 (not significant)

There was no statistically significant gender difference in the knowledge of the meaning of ovulation (P>0.05) as shown in table 7.

TABLE 8

Respondents' knowledge of the time of ovulation by sex

Ovulation occurs	Males (%)	Females (%)	Total (%)
1. At about the middle of the menstrual cycle	104 (27.4)	157 (42.4)	261 (34.8)
2. During menstruation	126 (33.2)	55 (14.9)	181 (24.1)
3. Few days after menstruation	114 (30.0)	131 (35.4)	245 (32.7)
4. All of the above	14 (3.7)	13 (3.5)	27 (3.6)
5. No response	22 (5.8)	14 (3.8)	36 (4.8)
Total	380 (100)	370 (100)	750 (100)

Only 27.4% of the male respondents and 42.4% of females knew that ovulation occurs at about the middle of the menstrual cycle (Table 8).

TABLE 9

Statistical Test of Gender relationship in Knowledge of the time of ovulation

		Males (%)	Females (%)	Total (%)
Knowledge of time of ovulation	Correct	104 (27.4)	157 (42.4)	261 (34.8)
	Incorrect	276 (72.6)	213 (57.6)	489 (65.2)
	Total	380 (100)	370 (100)	750 (100)

$X^2 = 18.09$

Df = 1

$P < 0.01$ (significant)

The chi square test reveals that there is a significant gender difference in the response to this question. The female respondents appear to be more informed on this question than their male counter parts ($p < 0.01$) as shown in table 9.

TABLE 10

Respondents' knowledge of a woman's fertile period by sex

A woman is most likely to be pregnant	Males (%)	Females (%)	Total (%)
1. Any time throughout the menstrual cycle	50 (13.2)	25 (6.7)	75 (10)
2. At about the middle of the menstrual cycle	94 (24.7)	169 (45.6)	263 (35.1)
3. Few days after menstruation	175 (46.1)	128 (35.0)	303 (40.4)
4. All of the above	37 (9.7)	27 (7.2)	64 (8.5)
5. No response	24 (6.3)	21 (5.6)	45 (6.0)
Total	380 (100)	370 (100)	750 (100)

Only 24.7% of male respondents and 45.6% of females correctly indicated that a woman is most likely to be pregnant if sexual intercourse takes place at about the middle of the menstrual cycle (Table 10).

TABLE 11

Statistical Test of Gender relationship in the knowledge of a woman's fertile period

		Males (%)	Females (%)	Total (%)
Knowledge of woman's fertile period	Correct	94 (24.7)	169 (45.7)	263 (35.1)
	Incorrect	286 (75.3)	201 (54.3)	487 (64.9)
	Total	380 (100)	370 (100)	750 (100)

$X^2 = 35.18$

Df = 1

$P < 0.01$ (significant)

The chi square test shows that there is a significant gender difference in the responses to this question ($P<0.01$). The female respondents have more knowledge of a woman's fertile period than their male counterparts (Table 11).

4.3 Knowledge of contraceptive methods

TABLE 12

Types of contraceptives known to the respondents

Types of contraceptive	Number	Percentage
Pills	423	56.4
Condoms	676	90.1
Injectables	252	33.6
IUCD	115	15.3
Diaphragm	117	23.6
Spermicides	261	34.8
Traditional herbs	5	0.7

N = 750

Multiple answers given

The majority of the respondents (96.4%) indicated that they had heard of contraceptive methods while 1.9% had never heard of any method and 1.7% did not respond. Table 12 shows the distribution according to the methods known to the students. The Condom was the most popular (90.1%) followed by the pills (56.4%), the injectable 33.6% and spermicides (34.8%).

TABLE 13

Respondents' source of information on contraceptives

Source	Frequency	Percentage Frequency
Radio	162	21.6
Television	66	8.8
Newspapers/Magazines	106	14.1
Parents/Relatives	17	2.3
Friends/Schoolmates	203	27.3
Health/Personnel	109	14.5
Lectures at school	68	9.5
No response	19	2.5
Total	750	100

With regards to the source of information on contraceptives, the electronic media was the most popular source (30.4%) of which Radio constituted 21.6% while Television constituted 8.8%. This was followed by information from friends or school mates (27.3%). Information from parents and relatives was the least mentioned source 2.3% (Table 13).

4.4 Respondents' sexual behaviour

TABLE 14

Distribution of Respondents' age at first sexual intercourse by sex

Age group (Years)	Males (%)	Females (%)	Total (%)
10-14	63 (21.1)	8 (3.6)	71 (13.8)
15-19	168 (56.4)	115 (52.8)	283 (54.8)
20-24	54 (18.1)	89 (40.8)	143 (27.7)
25-29	2 (0.7)	1 (0.5)	3 (0.6)
30-34	1 (0.3)	0.0 (0.0)	1 (0.2)
No response	10 (3.4	5 (2.3)	15 (2.9)
Total	298 (100)	218 (100)	516 (100'0)
Mean Age	16 years	18 years	
SD	4.34	3.66	

A total of 516 (68.8%) of the respondents indicated that they had had sexual intercourse while 31.2% have never had the experience. Among the sexually experienced, 298 (57.8%) were males while 218 (42.2%) were females. The mean age at first sexual intercourse was 16 years (SD 4.34) for males and 18 years (SD 3.66) for females (Table 14).

TABLE 15

Distribution of the sexually experienced students according to class at first intercourse and sex

Class at first intercourse	Males (%)	Females (%)	Total (%)
Primary school	26 (8.7)	5 (2.3)	31 (6.0)
Jnr. Secondary School	77 (25.8)	7 (3.2)	84 (16.3)
Snr. Secondary School	112 (37.6)	59 (27.1)	171 (33.1)
After Sec. School	33 (11.0)	45 (20.6)	78 (15.1)
100 level	25 (8.4)	64 (29.4)	89 (17.2)
200 level	12 (4.0)	24 (11.0)	36 (7.0)
300 level	3 (1.0)	7 (3.2)	10 (1.9)
400 level	0. (0.0)	2 (0.9)	2 (0.4)
No response	10 (3.4)	5 (2.3)	15 (2.9)
Total	298 (100)	218 (100)	516 (100'0)

The results further indicated that majority of the sexually experienced males (37.6%) had their first sexual experience when they were in the senior secondary school while the majority of the females (29.4%) had theirs in their first year (100 level) at the polytechnic. More males (8.7%) had started sexual experimentation in primary school than their female counterparts (2.3%). Please see table 15.

TABLE 16

Outcome of pregnancy among ever pregnant students

egnant outcome	Number	Percentage
ve birth	5	7.2
duced abortion	63	91.3
ill pregnant	1	1.5
otal	69	100

Among the sexually experienced students, 415 (80.4%) indicated that they e had sex at least once in the past one month. The remaining 101 did not ond to the question. Ninety one male respondents admitted that they had ie a girl pregnant and 87 (95.6%) of them admitted that the pregnancy was planned. Among the sexually active female respondents, 69 (31.6%) of them been pregnant. Of these, 63 (91.3%) admitted that the pregnancy ended in rtion, one person indicated that she was still pregnant as at the time of this dy while 5 (7.2%) of them said they had live births (Table 16). Sixty-six .7%) of those who had been pregnant admitted that the pregnancy was not ined while 3 (4.3%) people did not respond to the question.

.5 Respondents' usage of contraceptiives

TABLE 17

Utilization of contraceptives among sexually active Respondents

Contraceptive method	Frequency	Percentage frequency
Pills	49	9.5
Condoms	242	48.8
Injectables	7	1.4
Spermicides	1	0.2
Withdrawal	31	6.0
None	176	34.2
Total	516	100

A total of 340 (65.9%) of the sexually active students (N = 516) indicated that they used one form or other of modern contraceptives while 176 (34.2%) did not. A breakdown showed that two hundred and one of the 298 sexually active male respondents (57.4%) and 139 of the 218 females (63.8%) used contraceptives. The condom was the most frequently utilized method (48.8%). This was followed by the pills (9.5%) and the withdrawal method (6.0%) as shown in Table 17.

TABLE 18

Respondents' Reasons for using contraceptives

Reasons	Frequency	Percentage
1. To prevent unwanted pregnancy	225	66.2
2. To prevent sexually transmitted infections	33	9.7
3. To prevent both unwanted pregnancy and STIs	66	19.4
4. No response	16	4.7
Total	340	100

Prevention of an unwanted pregnancy was the most common reason (66.2%) for using contraceptives cited by the respondents. Only 9.7% of the respondents used the condom specifically to prevent the development of AIDS/STDs (Table 18).

TABLE 19

Respondents' reasons for not using contraceptives

Reasons	Frequency	Percentage
I don't like any method	46	26.1
Fear of side effects	29	16.5
Forgetfulness	12	6.8
Contraceptives are not natural	30	17.0
Undecided	15	8.5
No response	44	25.0
Total	176	100

One hundred and seventy six (34.2%) of the 516 sexually active students did not use any method of contraception. Reasons given were: "I don't like any method" (26.1%), fear of side effects (16.5%), belief that contraceptives are not natural (17%) and no response (25%).

TABLE 20

Respondents' sources of contraceptives

Sources	Frequency	Percentage
Chemist	226	66.5
Private Clinics	43	12.6
Family planning clinic	40	11.8
Friends/School mates	29	8.5
No response	2	0.6
Total	340	100

As shown in Table 20, most of the respondents procured their contraceptives from the chemist (66.5%), private clinics (12.5%) family planning clinics (11.8%) and from friends (8.5%).

TABLE 21

Relationship between previous pregnancy experience and usage of contraceptives by female students

		Previous pregnancy		Total (%)
		Yes (%)	No (%)	
Usage of contraceptives	Yes	52 (75.4)	87 (58.4)	139 (63.8)
	No	17 (34.6)	62 (41.6)	79 (36.2)
	Total	69 (100)	149 (100)	218 (100)

$X^2 = 5.16$

Df = 1

$P < 0.05$ (Significant)

Table 21 shows that girls who had a previous pregnancy experience were more likely to utilize contraceptives compared with those who had not. The difference was statistically significant ($p < 0.05$).

TABLE 22

Relationship between respondents' age group and their usage of contraceptives

Age group (years)	Usage of contraceptives		Total (%)
	Yes (%)	No (%)	
15 - 19	42 (12.4)	26 (14.8)	68 (13.2)
20 - 24	208 (61.2)	92 (52.3)	300 (58.1)
25 - 29	87 (25.5)	52 (29.5)	139 (26.9)
30 - 34	3 (0.9)	6 (3.4)	9 (1.7)
Total	340 (100)	176 (100)	516 (100)

$X^2 = 7.02$

Df = 3

$P > 0.05$ (Not significant)

Table 22 revealed that there is no significant difference between adolescents and the mature students in their usage of contraceptives ($P > 0.05$).

TABLE 24

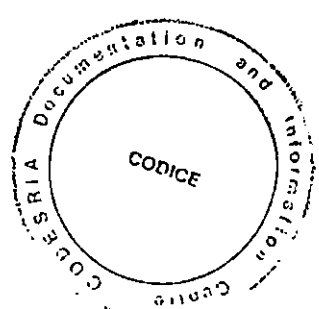
Relationship between Mother's Educational status and the use of contraceptives by the respondents.

Mothers' Educational Status	Contraceptive usage		
	Yes (%)	No (%)	Total (%)
Illiterate	43 (12.6)	42 (23.9)	85 (16.5)
Primary education	40 (11.8)	28 (15.9)	68 (13.2)
Secondary education	91 (26.8)	27 (15.3)	118 (22.9)
N.C. E./Equivalent	67 (19.7)	36 (20.5)	103 (20.0)
University graduates	99 (29.1)	43 (24.4)	142 (27.5)
Total	340 (100)	176 (100)	516 (100)

$X^2 = 17.94$

Df = 4

$P < 0.01$ (Significant).



Those who had literate mothers were more likely to use contraceptives than those who had illiterate mothers (Table 24).

TABLE 25

Relationship between students present class and their contraceptive usage

Students' present class	Contraceptive usage		
	Yes (%)	No (%)	Total (%)
100 level	102 (30.0)	49 (27.8)	151 (29.3)
200 level	71 (20.9)	30 (17.0)	101 (19.6)
300 level	83 (24.4)	40 (22.7)	123 (23.8)
400 level	84 (24.7)	57 (32.4)	141 (27.3)
Total	340 (100)	176 (100)	516 (100)

$X^2 = 3.69$

Df = 3

$P > 0.05$ (Not significant).

There was no statistically significant difference ($p > 0.05$) between utilization of contraceptives among students in the lower class and those in the higherclass(Table 25).

TABLE 26

Respondent's attitudes towards the use of contraceptives.

Attitudinal Issue	Strongly Agree N(%)	Agree N(%)	Dis-agree N(%)	Strongly Disagree N(%)	No Opinion	Total N(%)
Contraceptives offer good protection for the young people	376 (50.1)	199 (26.5)	69 (9.2)	25 (3.3)	81 10.8)	750 (100)
It is better for young people to use contra-ceptives than risk having a pregnancy and performing abortion	403 (53.7)	291 (38.8)	9 (1.2)	15 (2.0)	32 (4.3)	750 (100)
Contraceptives should be made to anyone who wants to use the	323 (43.1)	334 (44.5)	25 (3.3)	28 (3.7)	40 (5.3)	750 (100)
Contraceptive use by students make them promiscuous	105 (14.0)	121 (16.1)	248 (33.1)	128 (17.1)	148 (19.7)	750 (100)
The use of contraceptives by unmarried youth is not proper	100 (13.3)	107 (14.3)	222 (29.6)	284 (37.9)	37 (4.9)	750 (100)

The overall attitude of the students towards using contraceptives is positive. Table 26 hows that 76.6% of the respondents agreed with the statement that contraceptives offered ood protection for the young people. The majority agreed with the statements that it is better or young people to use contraceptives than risk having a pregnancy and performing abortion 92.5%) while 87.6% agreed that contraceptives should be made available to whoever wants o use them. On negative perception about contraceptive methods, 46.4% disagreed with the elief that contraceptives can make a woman barren, 19.8% agreed while 33.9% expressed no pinion. Similarly, the majority of the students disagreed with the belief that contraceptive use y students made them promiscuous (50.2%) and the belief that the use of contraceptives by nmarried youths was not proper (67.5%).

CHAPTER FIVE

DISCUSSION

The results are discussed under the subheadings: Demographic characteristics, knowledge of human fertility, knowledge of contraceptive methods, sexual behaviour, practice of contraception, sources of contraceptives and attitudes towards contraception.

The result showed that the proportion of male respondents was 50.7% while the females constituted 49.3%, giving a sex ratio of almost 1:1. There is a slight preponderance of males over their female counterparts; for example, out of a total 3,300 students in the hostels, 1,800 (54.5%) were males while 1,500 (45.5%) of them were females ie a M:F ratio of 1.2:1.

The age distribution (figure 2) showed that the majority of the respondents were from the 20-24 year age group with a mean of 22(SD 3.078) years. The minimum age was 16 years while the maximum age was 33 years. The wide age range is due to the fact that both the National Diploma (ND) and the Higher National Diploma (HND) students were included in the study. The minimum age for entry into tertiary institutions in Nigeria is 16 years. The data was collected at the beginning of a new academic session (1996/97) hence young new entries into the ND courses were included. On the other hand, the HND students are mostly people who had already completed their ND program and had probably worked for some years. Therefore they were older by the time they start the HND

program. However, this study considered only the unmarried students.

The percentage of Yoruba respondents (92.7%) was more than that of all other ethnic groups combined (Table 3). This is not surprising as it reflects the geoethnic location of the institution. Ibadan, the capital of Oyo state is predominantly a Yoruba speaking town, moreover, the polytechnic is owned by the Oyo state government.

Therefore the majority of the students admitted were invariably Yorubas. There was however a small percentage of other ethnic groups among the students. Most of the respondents were from the faculty of Commerce and Communication Sciences (58.4%). Although data on the distribution of the students by their faculties was not available from the Polytechnic authority, this could be because it is the largest faculty in the Institution while the Education faculty being the smallest had the least number of respondents (4.1%). Similarly there were more first year ND students (100 level) than there were students in other classes hence their high representation (34.8%) in the sample surveyed. This was followed by the 400 level students (first year HND students, 23.7%). The proportion of students from other classes also reflects the distribution of the students' population in the hostels by class.

The ratio of Christians to Moslems is about 3:1 while the African Traditional religion was almost negligible (1.1%). It may be inferred that Christianity is the predominant religion of the students.

It was found that the majority of the respondents had literate parents. This could be because literate parents are more likely to value their children's education and can also afford to train them unlike the illiterate parents.

The majority of the students (85.65%) knew the meaning of ovulation and there was no significant gender difference. This may be based on the residual knowledge gained from basic human biology taught in secondary schools. However, some of the students gave wrong answers. Knowledge of the actual time of ovulation and the likely fertile period of a woman was very low (34.8%) and 35.1% respectively). There was significant gender difference and the females had more knowledge than the males. This is in agreement with the findings of Nichols et al (1986) in which 38.7% of the males and 53.8% of the females in the University had correct knowledge of a woman's fertile period. The reason for this significant gender difference could be because the negative effects of unwanted pregnancy are more pronounced on the girls, hence they are more curious to know such basic facts. However, even among the female respondents, many of them had erroneous ideas. For example 35.4% of the female respondents thought that ovulation occured a few days after menstruation while some had no idea at all. This disparity could be explained by the fact that there is no effective family life education yet for students in tertiary institutions in Nigeria.

The majority of the students (96%) had heard about contraceptive methods implying a high contraceptive awareness. This is in agreement with the findings of Nichols et al (1986) who reported that almost all the University students in Ibadan responded that they had heard of contraceptives. The popularity of condoms could be due to the organized mass media promotion of condoms in recent times especially as relates to the prevention of HIV/AIDs. To buttress this point, one third of the students (30.4%) cited the electronic media (Radio and Television) as their first source of information on contraceptives. The radio in particular plays a vital role in disseminating information on contraceptives because most students can afford it and they listen to it very well. Information from friends constituted 27.3% of the sources of information in this study. Previous studies from Mexico (Recio, 1993), Ivory Coast (Boloko and Kouame, 1981) and Nigeria (Makinwa - Adebusoye, 1991) revealed that friends were the most frequently cited source of information by youths followed by the mass media. The reversal of this trend in this study may be due to the educational and family backgrounds of the students. However, the influence of friends on knowledge of contraceptives among the students in this study is still high. This underscores the key role played by friends (peer groups) in the life of the youth. However, the problem is that information from friends may be poor, incomplete, distorted or completely wrong. The most authentic source of information is from the health professionals; unfortunately, this source is not being adequately utilized by the students. Only 14.5% of the respondents cited health professionals as their

source of information (Table 13). Similarly, lectures at school and information received from parents/guardians were the least sources of information. This is in agreement with the findings of the previous researchers mentioned earlier. The reasons could be that most parents and guardians still do not feel comfortable to discuss matters relating to sex and contraception with their children thus leaving them to find out on their own from whatever source; sometimes with unpleasant consequences. On the other hand, most young people do not discuss sex and contraception with their parents or guardians because they may not want their parents to know that they are interested in such things.

A total of 516 respondents (68.8%) comprising 298 males (57.8%) and 218 females (42.2%) were sexually active. This figures are higher than the findings of Makinwa (1991) among Nigerian adolescents in which 44% of females and 38% of females were sexually active. However Ajayi et al (1991) reported that 51% of Kenyan youths were sexually active and Morris et al (1985) reported 42% of sexually active males age 10 - 19 years in Mexico. This finding could be a time reflection of the rising trend in the premarital sexual activity among youths in Nigeria. Furthermore, sexual experimentation is occurring at a lower age, the lowest age at first intercourse among boys in this study was 10 years (mean 16 years) and 12 years (mean 18 years) for girls! Makinwa - Adebusoye (1991), reported the mean age at first sexual intercourse among Nigeria adolescents as 17 years for girls and 18 years for boys.In Kenya,Ajayi et al (1991) found a mean age of 13 years for boys and 14 years for girls. These two previous researchers

studied only the adolescent age group while this study considered both adolescent and young adults in Polytechnic hence the differences in the findings.

By the age of 14 years, 63 boys (21.1%) had had their first sexual experience while only 8 girls (3.6%) had done so. Boys tend to overcome fear and shyness earlier than the girls moreover, boys are more free to leave home and visit their friends earlier than the girls. Furthermore, 26 (8.7%) of the sexually active boys started sexual experimentation in primary school while only 5 girls (2.3%) made such attempts in primary school. In both sexes, there is high sexual activity in their senior secondary school years. By the time they were in their first year in the Polytechnic, more girls (29.4%) had been initiated into sexual activity than boys (8.4%) as shown in table 15. This trend could be explained by the fact that most girls become independent from the influence of their parents or guardians for the first time when they enter higher institutions. Once in the school, they have freedom to receive as well as visit their boyfriends. The knowledge of this pattern of sexual behaviour is important in planning the time of family life intervention program for youths.

The consequences of non utilization of contraceptives have been experienced by some of the respondents. Ninety one male respondents admitted that they had made a girl pregnant before and 87 (95.6%) of them admitted that the pregnancy was not planned. Among the female respondents, a total of 69 people had been pregnant and 63 (91.3%) of them admitted that they had induced abortion. This percentage is far higher than the reported 30% illegal

abortion among secondary school girls in Benin City, Nigeria (Oronsaye and Odiase, 1983). The result obtained in this study may even be an under estimate of the actual figure since some of them did not respond to this question.

This study revealed that knowledge and use of contraceptive methods was high among the students. Out of a total of 65.9% of sexually active respondents who used contraceptives, 57.4% were males while 63.8% were females. Thus, there has been a remarkable improvement over the findings of Makinwa - Adebusoye (1991) in which only 42% of sexually active adolescent males and 39% of the females used contraceptives. This new finding might be due to the impact of the various family planning and HIV/AIDS prevention campaigns being conducted over the last decade in Nigeria.

The condom was the most commonly used method (48.8%) and this could be the effect of mass media promotions as well as the global HIV/AIDS scare. It also suggests that many students may find it useful and easy to obtain hence its popularity. The results also showed that the main reason given by the students for using contraceptives was for prevention of unwanted pregnancy (66.2%). Others mentioned prevention of sexually transmitted infection (9.7%) while 19.4% mentioned both prevention of unwanted pregnancy and infections. This is not surprising since it is expected that sexually active students should avoid pregnancy to enable them complete their studies.

For those who did not use any method of contraception (34.1%) but were engaging in sexual activities, dislike for any method of contraception (26.1%) was the most frequently cited reason (Table 19). Other reasons included the belief that contraceptives are not natural (17%), fear of side effects (16.5%) and forgetfulness (6.8%). These reasons varied widely from reports of previous researchers. For example, in the study by Nichols et al (1986), lack of knowledge and concern about safety were the most frequently cited reasons. In the USA, half the girls interviewed thought that condoms broke easily (Reicherlt and Werley, 1975) while in Brazil, 88% of respondents cited fear of side effects as their reasons (Zabin and Clark, 1981). None of the respondents in this study mentioned lack of knowledge. This suggests that with proper counselling, they could use contraceptives or abstain from sex completely.

There was a significant association between previous pregnancy experience by female students and usage of contraceptives (Table 21). This is expected because many students would not want a repetition of a previous unpleasant pregnancy experience so they would rather use contraceptives. Age as well as the class level were found not to be statistically significant in affecting the usage of contraceptives. Thus it appears that in the tertiary institution, age is not significant in decision making as far as contraceptive usage is concerned. However, the parents' educational status was significantly associated with the students' contraceptive practices. The reason could be that the children of the literate parents are more exposed to educational materials than those of the

illiterate parents. Moreover, the literate parents may be more courageous and willing to give their children sex education than the illiterate ones.

The most common source of contraceptives among the students was the chemist (66.5%) followed by private clinics (12.6%). Patronage of family planning clinics was low (11.8%). According to Zabin and Clark (1981), fear of meeting family friends and relations was the major reason preventing young people from attending family planning clinics in the USA. Other reasons could be lack of time and the attitude of family planning providers. In Senegal, nurses' aids who screened women at family planning clinic entrances turned away young unmarried women (Population Council, 1991). The disadvantage of patronizing a chemist is that they offer no counselling whatsoever.

According to Green et al (1980), attitude is "a constant feeling that is directed towards an object (be it a person, an action or an idea)". Attitude cannot be seen but it can be inferred from people's responses to certain situations. Attitudes are to some degree the determinants, components and consequences of behaviour. The decision to use or not to use contraceptive methods depends on the students' attitude towards contraception and contraceptive methods. The majority of the respondents were found to have a positive attitude towards the use of contraceptives. This positive attitude could, be as a result of the influence of their level of education, age group, family background and past experiences. This is an improvement over the results of Makinwa and Nichols et al who found that majority of the adolescent respondents had negative attitudes to contraception.

PUBLIC HEALTH SIGNIFICANCE OF THE FINDINGS

This study has revealed that quite a substantial proportion (34.2%) of students are engaging in sex without using contraceptives in spite of the apparently high knowledge of contraceptives. Knowledge of human fertility and ovulation was found to be low among the students. The combination of these factors predispose sexually active students to the risk of unwanted pregnancy, complications of abortion and sexually transmitted infections especially HIV. Though it is difficult to determine the exact prevalence of these complications among the student population, it is note worthy that 69 of the 218 sexually active respondents (31.7%) admitted having ever been pregnant and 91.3% of them admitted that they had had induced abortion. Many students may not be able to afford medical bills because of the expense therefore they often patronize quack Doctors to have an induced abortion. This may result in serious complications like haemorrhage, uterine perforation and injury to pelvic structures thus contributing to the high maternal morbidity and mortality in Nigeria (8-10/1,000 live births). Furthermore, in view of the high case fatality rate of HIV/AIDS(about 100%), unprotected sexual intercourse should be accorded serious attention with a view to preventing it.

It is therefore necessary for effective measures to be taken to discourage the youth from engaging in casual sex through education on the health and social consequences of such actions. They also need to be educated on available options to safer sex. The results from this study have shown various factors that

influence the knowledge and practice of contraception among the students. These include the mass media, friends or peergroups, health professionals, lecturers, parents and guardians. Access to correct information is therefore vital in adoption of innovation like contraceptive usage. Although increased knowledge does not always lead to behaviour change, some degree of health knowledge is necessary before personal health action can occur. According to Rogers and Shoemaker (1971), awareness is the first stage of adoption of any innovation. Therefore, persons or materials that influence students life style can be utilized to effect positive changes in their health behaviour.

The mass media has a dual effect on the sexual behaviour of youths because most young people love mass media entertainment. Unfortunately, some of this entertainment conveys misleading messages. For instance, casual sex is depicted on the electronic media such as videos and televisions and in magazines and comic books as acceptable and as if it is without any adverse consequences. On the other hand, messages on contraceptives are being aired frequently on radio and television. Studies have shown that mass media programs increased young people's awareness of AIDS and their approval and use of condoms in Ghana (McCombie et al, 1992) and the Democratic Republic of Congo (Zaire) (Convisser, 1992). It is thus pertinent to place emphasis on programs that promote healthful living and minimize those that tend to corrupt moral values.

The influence of peer groups can be put into positive use. Young people can be trained as "peer educators". They can provide useful insight during

program design for the youth.

The role of Doctors and Nurses is also very crucial in counselling students because many of them pass through the Polytechnic clinic daily to obtain medical care. Establishing rapport and confidence with the students makes them feel free to discuss social as well as medical problems. Through such discussions, the right counselling would be offered and students' questions would also be answered.

Similarly, the role of the lecturers is of paramount importance. According to Singer (1978) *" the method of learning did not remain in students' memories but the teacher as a person did; students talk of certain teacher who increased or decreased the pleasure of learning"*. Lecturers' behaviour and mode of presentation of knowledge influences students' behaviour as well. Therefore there is need for proper training of lecturers in reproductive health to enable them teach their students.

The role which parents and guardians play as a source of information on reproductive health issues is still very minor. Parents need to develop a closer, loving and understanding relationship with their children in order to inspire confidence in them and be in a position to offer them the necessary information and counsel on reproductive health issues.

RECOMMENDATIONS

Based on the findings in this study, the following recommendations are offered:

A: To the government:

1. Family life education (FLE) should be included in the school curriculum for students in all secondary and tertiary institutions in Nigeria. This could be taught in General Studies (GS) which is compulsory for all first year students. The course content should include basic knowledge of human fertility, health and social consequences of unwanted pregnancies, family planning and responsibilities of parenthood, population dynamics and consequences of over population.
2. Mass media programs should be well censored to include those promoting sexual abstinence and contraceptive usage for those at risk.
3. Health professionals should be given orientation on adolescent reproductive health problems and how best to manage them. This can be done through seminars or workshops to be organized by the Ministry of Health at Federal and State levels.
4. National and International Agencies should make grants available to stimulate interest in research on reproductive health.

B: To the Educational Institutions:

1. In order to make FLE to be successful in schools, training workshops should be organized for lecturers of General Studies to equip them with the right knowledge and skill to teach reproductive health.

2. Peer education strategy should be adopted. The peer educators should be volunteers selected from among the students who can be trained on reproductive health topics. These educators will then interact with other students and enlighten them more on ways of preventing unwanted pregnancy and sexually transmitted infections.

3. Effective family planning services should be incorporated into existing health services in higher institutions. It is hoped that this will discourage students from going to wrong sources to obtain contraceptive advice.

C: To the family:

Parents should be encouraged to educate their wards on basic reproductive health matters right from the home. Parents can be reached during Parents-Teachers Association meetings, club and religious meetings.

SUMMARY AND CONCLUSION

A cross-sectional survey was conducted to study the knowledge, attitude and use of contraceptive methods among unmarried polytechnic students in Ibadan. A total of 750 students were selected by stratified random sampling and data was collected using a self-administered questionnaire.

The results revealed that knowledge and use of contraceptive methods was high among the students. Most students cited the mass media and friends as their first sources of information on contraceptives. Their commonest source of procurement of contraceptives was the chemist while condom was the most commonly used method.

Previous pregnancy experience by female students and parental educational status were significantly associated with contraceptive use. However, age and level of study were not significantly associated with contraceptive use. A substantial proportion (34.2%) of students were engaging in sexual intercourse without using contraceptives. Reasons given by some students for not using contraceptives included; dislike for all methods of contraceptives, fear of side effects of contraceptives, belief that contraceptives are not natural and indecision. The majority of the students had positive attitudes towards contraceptives while a minority had negative beliefs and misconceptions about the use of contraceptives.

In conclusion, it was observed that there has been a remarkable increase in knowledge and practice of contraception among the respondents. It is hoped that implementation of the recommendations offered in this study will go a long

way to maintain the tempo. Sex education has been shown to improve knowledge of contraceptives and increase restraint in sexual behaviour among youths in USA (Kirby, 1980; Zelnik and Kim, 1982) and it is anticipated that this could also work here in Nigeria.

Future research should address issues such as the factors responsible for low patronage of family planning clinics by sexually active young people in Nigeria.

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APPENDIX A

DEPARTMENT OF PREVENTIVE AND SOCIAL MEDICINE COLLEGE OF MEDICINE, UNIVERSITY COLLEGE HOSPITAL, IBADAN.

QUESTIONNAIRE

Dear respondent,

This questionnaire is designed to asses the contraceptive knowledge, attitude and practice of Nigerian students in tertiary institutions. It will be appreciated if you provide HONEST answers to the questions as best as you can. The result of the responses will be used for academic and research purposes only.

Confidentiality of responses is GUARANTEED since your name is NOT required on the questionnaire. Married students are excluded from participating in this study.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Age: (Last birth day)

2. Sex: (1) Male ..... (2) Female .....

3. Ethnic Group .....

4. Hall .....

5. Faculty .....

6. Present Class .....

7. What is your religion? (Circle the correct response)

    1. Christianity
    2. Islam
    3. African traditional religion
    4. Others (Specify) .....

8. What is your marital status? (Circle your answer)

   1. Single/Never married
   2. Married
   3. Separated/Widowed/Divorced

9. What is your father's level of education

   1. Illiterate
   2. Primary Education
   3. Secondary School or equivalent
   4. N.C.E. or Equivalent
   5. University graduate or equivalent

10. What is your mother's level of education?

   1. Illiterate
   2. Primary education
   3. Secondary school or equivalent
   4. N.C.E. or equivalent
   5. University graduate or equivalent

SECTION B: KNOWLEDGE OF HUMAN FERTILITY AND CONTRACEPTION

11. Ovulation means: (Circle correct answer)

    1. When matured female eggs are released from the ovary
    2. Monthly bleeding
    3. Vaginal discharge
    4. All of the above

12. Ovulation occurs

    1. At about the middle of the menstrual cycle
    2. During menstruation
    3. Few days after menstruation
    4. All of the above

13. When in the normal menstrual cycle do you think pregnancy is most likely to occur if there is sexual intercourse?.

    1. Anytime throughout the cycle
    2. At about the middle of the cycle
    3. Few days after menstruation
    4. All of the above

14. There are various ways by which partners can prevent unwanted pregnancy.

    Have you heard of any?

    1. Yes ..... 2. No .....

15. Which of the following contraceptives do you know (Circle all that apply)

    1. Pills .....
    2. Condoms .....
    3. Injection .....
    4. IUCD .....
    5. Diaphragm .....
    6. Spermicides e.g foaming tablets .....
    7. Others (specify) .....

16. From where did you first learn about contraceptive methods?

    1. Radio/Television
    2. News papers/Magazines
    3. Parents/Relatives
    4. Friends/Schoolmates
    5. Hospital Staff (Doctors, Nurses etc)
    6. Lectures at school

17. Have you ever had Sexual Intercourse?

    (1) Yes (2) No

    If NO, go to Question 28

18. How old were you when you had your first sexual experience?

    .....

19. What class were you at that time .....

20. How many times have you had sex within the past one month?

    .....

21. What contraceptive do you or your partner use? .....

22. What is your main reason(s) for using contraceptives? ....

.....

23. Have you been pregnant before?

(1) Yes (2) No (go to Question 29)

24. Have you made a girl pregnant before?

(1) Yes (2) No (Go to Question 29)

25. What was the out come?

1. Livebirth
2. Still birth
3. Miscarriage
4. Abortion
5. Still pregnant

26. Was the pregnancy planned?

(1) Yes (2) No

27. Where do you obtain your contraceptives presently?

1. Chemist/Medicine store
2. Private Clinic
3. Family Planning Clinic
4. From friends/Schoolmates

28. If you or your partner do not use any contraceptives, please give reason.
.....

SECTION C: ATTITUDES TOWARDS CONTRACEPTION

Please tick in the appropriate Column.

	1 Strongly agreed	2 Agreed	3 Disagree	4 Strongly Disagree	5 No Opinion
Contraceptives offer Good protection for the young people					
It is better for young people to use contraceptives than risk having a pregnancy and performing abortion					
Contraceptives should be made available to any one to use them					
Contraceptives can make a woman a barren					
Contraceptives use by students make them promiscuous					
The use of contraceptives by unmarried youth is not proper					

Thank you very much for your co-operation.

APPENDIX B

SAMPLE SIZE CALCULATIONS:

(a) Sample size for male respondents:
Formula: $n_1 = Za^2 Pq/d^2$

Where: Za is the constant value for the chosen confidence interval of 95%.

The value of Za at 95% C.I. = 1.96.

P is the proportion i.e the contraceptive prevalence.

The value of P = 0.42

q = 0.58

d is precision. The value of precision = 0.05

n_1 is the sample size.

Therefore the value of n for male respondents would be

$1.96^2 * 0.42 * 0.58/0.05^2 = 374$

(b) For female respondents, the above parameters are also applicable except that:

the value of p = 0.39

q = 0.61

Therefore, sample size n_2 would be

$1.96^2 * 0.39 * 0.61/0.05^2 = 366$

Source: Biostatistics: A foundation course in Health Sciences by J.F. Olawuyi. Ibadan Yotson Consult Communications, 1996. 123p.

COLLEGE OF MEDICINE
DEPARTMENT OF PREVENTIVE AND SOCIAL MEDICINE

RSITY OF IBADAN, IBADAN, NIGERIA
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Telex: 31520 NG
Telegrams: Teachos Ibadan

[redacted]

26 June 1996

Prof. Deacon O. Oshobi
Rector
Polytechnic
Ibadan.

Dear Sir,

RE: DR. D.E. OGALA

The above named Doctor is a postgraduate student in our Department, doing an M.P.H. course in Community Medicine, He plans to write his dissertation on the subject of "Contraceptive knowledge, attitude and practice among students of the Polytechnic in Ibadan".

We would be most grateful, sir, if you could kind give him permission to carry out the survey. The survey will entail the administration of questionnaires which will be filled confidentially by the students.

The survey, we hereby assure you sir, will not disturb the routine of the students in any way, nor have any adverse effect on the Institution. It is purely for academic purposes.

Thank you sir, and God bless.

Yours sincerely,

Modupe Onadeko

Dr. (Mrs.) M. Onadeko, M.D.
Co-ordinator.

THE POLYTECHNIC, IBADAN

IBADAN, NIGERIA.

Telegrams & Cablegrams: POLYTECHNIC
IBADAN.
PABX (022) 410133, 410154, 411122, 410481
Telex: 31222

ADM/REG.66/V/102 8th August, 1996.

The Co-ordinator,
College of Medicine,
Department of Preventive &
Social Medicine,
University College Hospital,
Ibadan.

Attention Dr.(Mrs.) M. Onadeko.

Dear Sir,

RE: DR. D.E. OGALA

Your letter dated 26th June, 1996 concerning the above named Doctor refers please.

I have the instruction of the Registrar to inform you that permission has been granted Dr. D. E. Ogala to carry out the survey on administration of questionnaire which will be filled confidentially by selected students.

Best regards.

T. F. Adesina
P.A.(Registrar)

Table A.1 (*continued*)

Line/ Col.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
36	91567	42595	27958	30134	04024	86385	29880	99730	55536	84855	29088	09250	79656	73211
37	17955	56349	90999	49127	20044	59931	06115	20542	18059	02008	73708	83517	36103	42791
38	46503	18584	18845	49618	02304	51038	20655	58727	28168	15475	56942	53389	20562	87338
39	92157	89634	94824	78171	84610	82834	09922	25417	44137	48413	25555	21246	33509	20468
40	14577	62765	35605	81263	39667	47358	56873	56307	61607	49518	89656	20103	77490	18062
41	98427	07523	33362	64270	01638	92477	66969	98420	04880	45585	46565	04102	46880	45709
42	34914	63976	88720	82765	34476	17032	87589	40836	32427	70002	70663	88863	77775	69348
43	70060	28277	39475	46473	23219	53416	94970	25832	69975	94884	19661	72828	00102	66794
44	53976	54914	06990	67245	68350	82948	11398	42878	80287	88267	47363	46634	06541	97809
45	76072	29515	40980	07391	58745	25774	22987	80059	39911	96189	41151	14222	60697	59583
46	90725	52210	83974	29992	65831	38857	50490	83765	55657	14361	31720	57375	56228	41546
47	64364	67412	33339	31926	14883	24413	59744	92351	97473	89286	35931	04110	23726	51900
48	08962	00358	31662	25388	61642	34072	81249	35648	56891	69352	48373	45578	78547	81788
49	95012	68379	93526	70765	10592	04542	76463	54328	02349	17247	28865	14777	62730	92277
50	15664	10493	20492	38301	91132	21999	59516	81652	27195	48223	46751	22923	32261	85653
51	16408	81899	04153	53381	79401	21438	83035	92350	36693	31238	59649	91754	72772	02338
52	18629	81953	05520	91962	04739	13092	97662	24822	94730	06496	35090	04822	86774	98289
53	73115	35101	47498	87637	99016	71060	88824	71013	18735	20286	23153	72924	35165	43040
54	57491	16703	23167	49323	45021	33132	12544	41035	80780	45393	44812	12515	98931	91202
55	30405	83946	23792	14422	15059	45799	22716	19792	09983	74353	68668	30429	70735	25499
56	16631	35006	85900	98275	32388	52390	16815	69293	82732	38480	73817	32523	41961	44437
57	96773	20206	42559	78985	05300	22164	24369	54224	35083	19687	11052	91491	60383	19746
58	38935	64202	14349	82674	66523	44133	00697	35552	35970	19124	63318	29686	03387	59846
59	31624	76384	17403	53363	44167	64486	64758	75366	76554	31601	12614	33072	60332	92325
60	78919	19474	23632	27889	47914	02584	37680	20801	72152	39339	34806	08930	85001	87820
61	03931	33309	57047	74211	63445	17361	62825	39908	05607	91284	68833	25570	38818	46920
62	74426	33278	43972	10119	89917	15665	52872	73823	73144	88662	88970	74492	51805	99378
63	09066	00903	20795	95452	92648	45454	69552	88815	16553	51125	79375	97596	16296	66092
64	42238	12426	87025	14267	20979	04508	64535	31355	86064	29472	47689	05974	52468	16834
65	16153	08002	26504	41744	81959	65642	74240	56302	00033	67107	77510	70625	28725	34191
66	21457	40742	29820	96783	29400	21840	15035	34537	33310	06116	95240	15957	16572	06004
67	21581	57802	02050	89728	17937	37621	47075	42080	97403	48626	68995	43805	33386	21597
68	55612	78095	83197	33732	05810	24813	86902	60397	16489	03264	88525	42786	05269	92532
69	44657	66999	99324	51281	84463	60563	79312	93454	68876	25471	93911	25650	12682	73572
70	91340	84979	46949	81973	37949	61023	43997	15263	80644	43942	89203	71795	99533	50501

71	91227	21199	31935	27022	84067	05462	35216	14486	29891	68607	41867	14951	91696	85065
72	50001	38140	66321	19924	72163	09538	12151	06878	91903	18749	34405	56087	82790	70925
73	65390	05224	72958	28609	81406	39147	25549	48542	42627	45233	57202	94617	23772	07896
74	27504	96131	83944	41575	10573	03619	64482	73923	36152	05184	94142	25299	84387	34925
75	37169	94851	39117	89632	00959	16487	65536	49071	39782	17095	02330	74301	00275	48280
76	11508	70225	51111	38351	19444	66499	71945	05422	13442	78675	84031	66938	93654	59894
77	37449	30362	06694	54690	04052	53115	62757	95348	78662	11163	81651	50245	34971	52924
78	46515	70331	85922	38329	57015	15765	97161	17869	45349	61796	66345	81073	49106	79860
79	30986	81223	42416	58353	21532	30502	32305	86482	05174	07901	54339	58861	74818	46942
80	63798	64995	46583	09785	44160	78128	83991	42865	92520	83531	80377	35909	81250	54238
81	82486	84846	99254	67632	43218	50076	21361	64816	51202	88124	41870	52689	51275	83556
82	21885	32906	92431	09060	64297	51674	64126	62570	26123	05155	59194	52799	28225	85762
83	60336	98782	07408	53458	13564	59089	26445	29789	85205	41001	12535	12133	14645	23541
84	43937	46891	24010	25560	86355	33941	25786	54990	71899	15475	95434	98227	21824	19358
85	97656	63175	89303	16275	07100	92063	21942	18611	47348	20203	18534	03862	78095	50136
86	03299	01221	05418	38982	55758	92237	26759	86367	21216	98442	08303	56613	91511	75928
87	79626	06486	03574	17668	07785	76020	79924	25651	83325	88428	85076	72811	22717	50585
88	85636	68335	47539	03129	65651	11977	02510	26113	99447	68645	34327	15152	55230	93448
89	18039	14367	61337	06177	12143	46609	32989	74014	64708	00533	35398	58408	13261	47908
90	08362	15656	60627	36478	65648	16764	53412	09013	07832	41574	17639	82163	60859	75567
91	79556	29068	04142	16268	15387	12856	66227	38358	22478	73373	88732	09443	82538	05250
92	92608	82674	27072	32534	17075	27698	98204	63863	11951	34648	88022	56148	34925	57031
93	23982	25835	40055	67006	12293	02753	14827	23235	35071	99704	37543	11601	35503	85171
94	09915	96306	05908	97901	28395	14186	00821	80703	70426	75647	76310	88717	37890	40129
95	59037	33300	26695	62247	69927	76123	50842	43834	86654	70959	79725	93872	28117	19233
96	42488	78077	69882	61657	34136	79180	97526	43092	04098	73571	80799	76536	71255	64239
97	46764	86273	63003	93017	31204	36692	40202	35275	57306	55543	53203	18098	47625	88684
98	03237	45430	55417	63282	90816	17349	88298	90183	36600	78406	06216	95787	42579	90730
99	86591	81482	52667	61582	14972	90053	89534	76036	49199	43716	97548	04379	46370	28672
100	38534	01715	94964	87288	65680	43772	39560	12918	80537	62738	19636	51132	25739	56947

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