Thesis By

ADEDIMEJI

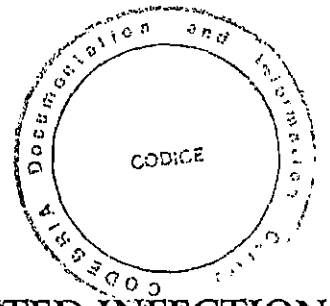
ADEBOLA

ALADE

B.Sc.(Hons)
Sociology (Ibadan),
M.Sc. (Ibadan)

SEXUALLY TRANSMITTED INFECTIONS: PREVALENCE, BEHA VI OURAL PATTERNS AND COPING STRATEGIES AM ONG ADOLESCENTS IN OYO STATE, NIGERIA.

February, 1998



SEXUALLY TRANSMITTED INFECTIONS: PREVALENCE, BEHAVIOURAL PATTERNS AND COPING STRATEGIES AMONG ADOLESCENTS IN OYO STATE, NIGERIA.

ADEDIMEJI ADEBOLA ALADE
B.Sc.(Hons) Sociology (Ibadan), M.Sc. (Ibadan)

A THESIS IN THE DEPARTMENT OF SOCIOLOGY
SUBMITTED TO THE FACULTY OF THE SOCIAL SCIENCES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF THE DEGREE OF
DOCTOR OF PHILOSOPHY
OF THE
UNIVERSITY OF IBADAN.

February, 1998.

ABSTRACT

Sexually Transmitted Infections (STIs) are major causes of reproductive health and socio- economic problems world wide and they affect all segments of the population including men, women and children.. Statistics from the World Health Organisation (WHO) showed that an average of 685,000 new cases of infections occur everyday, while every year, there are 250 million new cases. These figures are estimated to increase annually.

Adolescents have been identified as a group for whom the prevention of STIs is an urgent necessity given the risky nature of sexual activities and lack of barrier contraceptive use among them. Although there are no adequate statistics on the prevalence of STIs among adolescents in Nigeria, it is estimated that they account for between 15 and 30 percent of all reported cases of infections and often times, due to the exorbitant cost of procuring treatment, many of those infected do not seek health care from qualified medical personnel.

In spite of the reality of STIs as a major problem among adolescents, very little is known about their treatment seeking behaviour. For example, how do they cope with the problem of infection especially where they lack access to adequate medical facilities?. In light of these, the study set out to achieve the following objectives:

1. Provide information on adolescents' knowledge of sexually transmitted infections.

2. Examine the patterns of sexual behaviour among adolescents and the implications for the spread of infections.

3. Examine how socio-demographic factors, including age, sex, education, residence, etc. will influence and thus determine attitudes to infections.

4. Estimate the prevalence of infections among adolescents and identify common infections among them.

5. Investigate the coping strategies adopted by victims of infections and the implications for health seeking behaviour.

6. Identify existing strategies adopted by victims of infections and the factors that determine the choice of a particular method of treatment.

7. Investigate the psycho-social consequences of infections on the victims and significant others.

8. Make policy recommendations for the control of infections among adolescents.

The nature of the study necessitated a comparative study between urban and rural adolescents. A multistage sampling technique was utilised to select a total of 977 adolescents between the ages of 15 and 24 years to participate in a general survey and 200 adolescents of the same age category in a clinic survey. Respondents for the general survey were selected from Ibadan (defined as the urban area) and Tapa and Oolo; two rural communities located in Ifeloju and Ogbomosho South local government areas of Oyo State. In addition to the surveys, focus group discussions and cases studies of victims of infections were also conducted. The information collected was analysed by both quantitative and qualitative methods.

Two theoretical models, the theory of Social Action and the Voluntaristic theory of Action, were used in providing explanations for the observed patterns of behaviour of adolescents with regard to STIs. The findings showed that many adolescents (43.7%) engage in irregular, unplanned and unprotected sexual activities and this tended to increase the rate of transmission of infections among them. Although the level of awareness of STIs was high, (84% males vs. 86%

females) it was difficult for young people to recognise an infection when they are infected. Only a few (24%) could identify the symptoms associated with even the most common infection mentioned (gonorrhoea). Apart from knowledge of symptoms, many young people grossly under estimated their risk of exposure to infections and for this reason only a few of them (37%) had ever taken any measure to prevent being infected.

Estimates of the prevalence of STIs also suggests that STIs were a common problem among young people. In the general survey, about 15% of the respondents reported a history of infection while in the clinic survey, adolescents constituted about 48% of all those who reported at health facilities for treatment of infections. Those in the 20-24 year age category also reported the highest rates (37.6%) infections.

The findings also showed that many infected young people do not immediately seek qualified medical attention when they are infected, preferring instead, to try other kinds of treatment methods which only worsened the situation. Similarly, the rates at which infections spread may increase more than at present because attitudes toward partner notification as well as seeking treatment for partners are poor. Only 15% of males and 19% of females who were infected informed their partners about the infections and a fewer proportion were willing to procure treatment for their partners. In spite of these attempts, many of the partners were also reported to have refused to go for treatment.

The cost of treatment and the structural-environmental factors are two important factors which hinder adolescents from having access to qualified health personnel for the treatment of infections. In addition, societal norms and values as well as the peer group still remain powerful factors which determine the psycho-social consequences and the behavioural patterns of victims infected with

an STI. In view of the findings, some recommendations which could guide the design of intervention programmes and policies to reduce, if not completely eliminate, the problem of STIs were made. These recommendations include setting up intervention programmes that aim at behaviour modifications, provision of health education as a strategy for reducing the spread of infections. identifying individuals already infected and those at risk, recognising the important role of public health care providers in the control of STIs and finally, incorporating private sector health care providers in the efforts at controlling the spread of infections.

ACKNOWLEDGEMENTS

Throughout the duration of the Ph.D. programme, quite a number of people took an active interest in the progress of the work and especially expressed concern for a successful completion. The efforts and concerns of such people are deeply appreciated and it is in this wise that I want to acknowledge the worthy contributions of the following people.

First, to **GOD** alone must all the glory, honour and adoration be given, not only for giving me the wherewithal to complete the programme, but also in sparing my life till this moment to reap the fruits of my labour. For His numerous blessings and mercies, and for the victories he gave me, I say thank you **LORD**.

The quality of this work would not have been possible without the efforts of my kind and caring academic adviser, Dr. Obafemi Gboyega Omololu. In fact, the idea of the problem area which the study addressed emanated from the several discussions we had. Indeed, I am most grateful for his constructive criticisms, patience and understanding even at the point where I had almost given up hope. I want to thank him for believing so much in me and this in no small measure provided me with a lot of inspiration. It is really not possible to fully express the depths of my gratitude to him, my only prayer is that GOD Almighty enable him to reap what he has sown.

I must show my sincere appreciation for the love and concern of members of my immediate and extended families, The Adedimeji's and The Adebayo's. I especially acknowledge the efforts of my biological parents, Mr. and Mrs. Laiwola Adedimeji for giving me all the opportunities they could afford to give and for several other things which they had done for me. Similarly, I want to thank my parents in-law, Mr. and Mrs. I.P.L Adebayo for their support, morally, financially

and in other respects especially at such times when it seemed the work would never be completed. May the Almighty grant them long lives to reap the fruits of their labours.

I want to also seize this opportunity to acknowledge the concerns and prayers of my brothers and sisters, especially Toyin, Bimpe, Omolade, Olumide, who has since relocated to the United States and Oluwaseun, and most especially, that of my 'better half', Aderonke Adeola without whose support, encouragement and understanding, I may never have been able to complete the programme. I want to thank her for standing by me when it mattered most. Indeed, I am very grateful.

I wish to also acknowledge, with thanks, the various contributions made by my teachers, senior colleagues and contemporaries here at Ibadan and at Ago -Iwoye. Indeed, their contributions and suggestions have gone a long way in ensuring the quality of the work that has been produced. I will like to specially acknowledge Prof. Olayiwola Erinosho, an academic "per excellence", my head of department at Ogun State University and a father in every sense of the word. Indeed, his life has been an excellent model, which I have found very rewarding to emulate. His concern in the progress of the work and anxiety about the completion of the programme served as morale boosters when the going was tough.

The kindness of Dr. Uche Isiugo-Abanihe is also hereby acknowledged. At the initial stage of the report writing, his comments on the first draft were really very helpful. Others, whose worthy contributions are also duly acknowledged include these 'fine' academics: Prof. Onigu Otite, Drs. Austin Isamah, Justin Labinjoh, E. Adewale Oke, Jimi Adesina, Lanre Olutayo, Funmi Adewunmi, Bernard Owumi, Tony Obemeata, Dele Jegede, Ifeanyin Onyeonuru, Adeyinka Abideen Aderinto and Mr. Rasheed Okunola, all of the department of Sociology, University of Ibadan and Mr. Wole Atere of the Lagos State University. The

academic lives of these people have been very challenging and inspiring for my own academic growth and development. I also want to thank my colleagues in the 'home front' at Ago-Iwoye. They are Messrs Patrick Edewor, Ajadi Oyekunle, Sina Kawonise, Sola Aluko, Nurudeen Aliyu, Kehinde Obasan, Eniola Sokefun and Mrs Ogunsiji and Ola-Aluko for the useful contributions they made at seminars and other fora, where my work was discussed.

I can not forget to acknowledge the 'family' at the Association for Reproductive and Family Health, Ibadan, people with whom working has not only been quite challenging but also encouraging and rewarding. I want to particularly thank Chief (Dr.) Mrs. Grace Ebun Delano, the Vice-President and Executive Director, Prof. Alfred Adewuyi of the Obafemi Awolowo University, Mrs. Christy Laniyan, Liz Ekanem, who facilitated part of the data collection, Messrs Sunday Alao, Kola Oyediran, Gbenga Ishola, Sola Onifade, Remi Suara, Yinka Olagoke, Yemi Osanyin, Jide Iwasokun, Ahmed Ibrahim and others too numerous to mention. It is my prayer that God will reward them all in Jesus name.

I want to specially acknowledge a wonderful sister and friend, Atinuke Olapeju Fagade whose kind assistance at every stage of the work is deeply appreciated and her moral support deserves special commendation. Indeed, words are not sufficient to express the depth of my gratitude to her for all she did at every stage of the work even at the expense of her own commitments. My prayer for her is that God Almighty, who is the rewarder of all those who do good will not forget her labour of love and will reward her abundantly in Jesus name. In the same vein, I want to thank Mr. Adebayo Ajala for the interest he took in the analysis of the data, especially when it was difficult conducting the multivariate analysis and for various other contributions he made.

There are several others whose contributions, love and concern are greatly appreciated. The list seem endless. They include Prof. Kayode Adesogan, Prof. and Mrs Sam Olofin, Prof. and Mrs Bode Arowolo, Dr. and Mrs Akin Iwayemi, Eng. Richard Imohiosen, Venerable Dr. and Dr. (Mrs) Evans Ibeagha, Dr. Adeyemi Adekunle, Dr. Charles Onocha, Dr. Kola Ewete, Dr. Noma Owens Ibie, who read through a draft of the work, Dr. Wiliam Robert Brieger and Dr. Oladimeji Oladepo, both of the Africa Regional Health Education Center, Dr. Bola Udegbe, members of the Social Science and Reproductive Health Network, Dr. Tunde Owoola, Dr. and Mrs Emeka Ohagi, who now live in the United States, the senior friends and members of the Student Christian Movement, University of Ibadan, the Bible Study Group of the Chapel of the Resurrection, Seye Akinkunmi, Stella Ibeziako, Bola Raji, Kemi Daramola, Jenyo Oni, Mr and Mrs Emma Oga, Mrs Osho and Family, Mr. and Mrs Gbenga Olowoye, Opeyemi Olasusi, Ajibola Sangotumo, Tope Adeyemi, Dele Isibor, Mr and Mrs H.K. Adams (Collegiate Photography), Niyi Adeneye, Lanre Akindemowo, who facilitated part of the data collection, Pastor Lawal Lanipekun-Reeves, Muyiwa Efuntoye, Dr. and Mrs Yinka Aiyeyemi, Pastor and Mrs Christopher Akinola, Iyiola and Dupe Tella, Seyi Ayeni, Allwell Ibeagha, Mrs Shonowo and to all my students in the department of Sociology, Ogun State University, who in a peculiar way were sources of inspiration.

The support provided by the following organisations are also appreciated. They include The Council for the Development of Social Research in Africa, Dakar, Senegal and the Social Science and Reproductive Health Research Network, Ibadan, Nigeria.

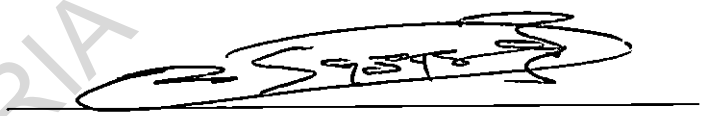
Finally, to everybody mentioned above and several others who were names were not mentioned, not as a result of oversight, but for reasons of time and space, I say a big thank you and God bless you mightily.

ADEDIMEJI A. Adebola

February, 1998.

CERTIFICATION

I certify that this work was carried out by
ADEDIMEJI, ADEBOLA ALADE
under my supervision, in the
DEPARTMENT OF SOCIOLOGY, UNIVERSITY OF IBADAN.



SUPERVISOR

OBAFEMI OLUGBOYEGA OMOLOLU,
B.Sc. (Hons.) Sociology (Calabar),
M.Sc., Ph.D. (Ibadan),
Dip. Population Studies (Johns Hopkins),
Lecturer, Department of Sociology,
University of Ibadan, Ibadan, Nigeria.

DEDICATION

This work is gratefully dedicated to

The Adedimeji's

The Adebayo's

Aderonke Adeola Adedimeji

and

Atinuke Fagade

Thank you for making life so meaningful

TABLE OF CONTENTS

List of Tables

List of Figures

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Persistent high fertility has resulted in increasing numbers of young persons in the world. Adolescents between the ages of 10-24 years, constitute a significant proportion of the world's population. Currently, more than half of the world's population is below the age of 25 (World Health Organisation, 1993). About 30% of these are between the ages of 10-25 and more than 80% of them live in developing countries. In many parts of the developing world, especially in sub-Saharan Africa, they constitute the majority of the population. In Nigeria, they account for 28% of the population.

Accompanying this large and growing population are new patterns of behaviour, including sexual behaviour, which are sharp departures from the traditional norms and values which govern behaviour in most societies. The last decades of the 20th century have witnessed a dramatic change in the pattern of sexual behaviour of young people. Economic progress, accelerated urbanisation, technological revolutions in communications and increased migration have produced new patterns of sexual behaviour among young people. The result has been an increasing number of young people who engage in sexual relations prior to marriage. Studies all over the world have shown that premarital sexual activities among adolescents are often unplanned, infrequent and sporadic. Many of them also lack the basic information necessary to take preventive measures against pregnancy and sexually transmitted diseases. Thus, a major outcome of such behaviour often manifests in health and socio-economic consequences including unintended and unwanted pregnancies as well as sexually transmitted diseases.

The problem of adolescent sexual behaviour is more pronounced in many parts of the developing world, especially in Africa due to the structural and normative contexts within which the subject of adolescent sexuality is considered. For example, in most societies, the issue is often surrounded by strict social, moral and religious beliefs and in some cases, it is a taboo to openly discuss and acknowledge the fact that adolescents are engaging in sexual relations before marriage. The normative pattern of behaviour especially within the adolescent subculture is that which encourages young people to experience premarital sexual intercourse without basic information on reproductive biology and of the preventive measures that can be taken to avoid negative outcomes as pregnancy and STIs. Thus, it is sometimes difficult to objectively study and understand why an increasing number of young people are engaging in sexual relations before marriage. However, knowledge of why young people engage in this kind of behaviour, especially their inability to take preventive measures and the outcome of unintended pregnancies and sexually transmitted diseases is very essential in order to develop sound advice for young people and also in deciding the course of action towards reducing the health and socio-economic consequences of such behaviour. While absolute control of sexual behaviour is not possible in any society, it is possible to influence sexual and health seeking behaviours of individuals only if there is adequate information about the determinants of such behaviours and the factors that can lead to appropriate, acceptable and sustained behaviour change. Adoption by individuals of such changes in behaviour would reduce the rate at which sexually transmitted infections spread.

1.2 Introduction

Sexual behaviour is an integral part of people's lives from childhood to adulthood. Although, one of the central functions of sexual behaviour is reproduction, it is hardly limited or tied to pregnancy and the desire to have children. In fact, the acts of sexual intercourse for pleasure, intimacy and bonding far outnumber those conducted for reasons of achieving pregnancy. Thus, sexual behaviour is not limited only to the reproductive years, but constitute a part of most people's lives from childhood to death.

Sexual behaviour is common, frequently practised by many and varies by gender and age, by social context, within different societies and from an individual to another. It is a social construction of a biological drive; multidimensional and dynamic. It is determined by biology, gender roles, power relations as well as by factors such as age and social and economic relations and cultural values The most profound societal influence on an individual's sexual behaviour is based on prescribed gender roles- the social norms and values that shape the relative power, responsibilities and behaviour of men and women. Girls, boys, women and men not only have different physical features, they are also socialised into different gender roles that significantly influence their sexual behaviour. For example, women's prescribed roles in sexual relations is to be passive. Women are not encouraged or given support to make decisions regarding their choice of sexual partners, to negotiate with their partners the timing and nature of sexual intercourse or to protect themselves from unwanted pregnancies and infections. On the other hand, for men, sexual conquest is almost universally prescribed as a way of proving one's manhood. Men are encouraged to think primarily of sexual performance and women's sexual pleasure is often accepted as proof of manhood. Also certain socially prescribed roles demand that males should be domineering in the matters of sexual behaviour. Similarly, in most societies, depending on social definition, young girls, are not expected to indulge in sexual activities while young boys are tacitly encouraged to do

so. Even in the few societies where young people are permitted to indulge in sexual activity, a boy's (or girl's) initiation into sexual activity is not expected to take place until certain "rites of passage to adulthood" are undertaken. Thus, age and gender exert powerful influence on social roles and these, in turn, affect the expression of sexual behaviour patterns.

Studies of sexual behaviour have attracted a lot of attention in recent years largely because there have been departures from traditional norms and practices which determine patterns of sexual behaviour in most societies. Moreover, the prevailing patterns of sexual behaviour are associated with tragedies that manifest in terms of sexually transmitted infections (STIs) including the dreaded human immunodeficiency virus (HIV) which, unfortunately shares similar modes of transmission with other STIs. Because a cure is yet to be found for the Acquired Immune Deficiency Syndrome (AIDS), emphasis has been on preventive measures through education, information and counselling. A major focus of this approach has been on behaviour modification in which case people are oriented toward complete or modest changes in the behaviours that increase the risk of contracting sexually transmitted infections. The problem with this approach however is that without comprehensive information on the prevalence of STIs, it may not be possible for it to achieve the desired degree of success.

Sexually Transmitted Infections (STIs) are infections that are passed from one person to another during sexual intercourse. They are also called sexually transmitted diseases (STDs). STIs are widespread throughout the world and they are on the increase. They constitute serious health problems in most parts of the world. Gonorrhoea, syphilis and more recently AIDS are among the most widely known, but there are more than 20 different kinds of STIs. Although, certain STIs such as gonorrhoea and syphilis have been controlled to a significant extent in many industrialised societies, they remain major problems in many parts of the developing world especially among the urban poor in sub-Saharan Africa (Lande, 1993) and

more recently in the rural areas (Feyisetan, 1991; Orubuloye, 1993; Brabin, et.al., 1995; McCoy, 1995). In some cases, some STIs, such as gonorrhoea and syphilis, which have been largely controlled in some populations, are on the increase again due to resistance to the antibiotic drugs which were once effectively used in treating infected persons in the past. On the average, it is estimated that about 685,000 people are infected daily with an STI and every year, there are about 250 million new cases world-wide (Khanna, et. al., 1994). Of these, 120 million cases of trichomoniasis are estimated annually and the estimated 50 million cases of genital infection with chlamydia trachomatis suggest that this is the most common bacterial STI (Rowe, 1994).

Sexually Transmitted Infections are a major public health problem in all parts of the world, but especially in developing countries and their consequences can be very devastating. They affect various aspects of the lives of people. They cause severe health problems for children, men and especially women. Infants, whose mothers have STIs like gonorrhoea, may be infected at birth with blinding eye infections or pneumonia. In men, they are capable of causing infertility if not detected and treated early. Perhaps women suffer the most severe health consequences of STI infection. STIs in women, estimated to affect 1 or 2 out of every 10 in some countries (Safe Motherhood Newsletter, 1994), are usually at an advanced stage before they are noticed. Apart from causing stillbirth, they can migrate from the lower reproductive tract causing pelvic inflammatory disease, inflammation of the uterus, fallopian tubes or ovaries, spontaneous abortion, chronic pelvic or abdominal pain, ectopic pregnancy and in extreme cases, infection of the whole reproductive system, including cancer of the cervix, thus leading to infertility or death. Lack of effective vaccines, inadequate modern medical facilities and ignorance are among the factors which have worsened the situation. In addition, many people are unwilling to change their behaviour and this can be directly linked to a complex set of social and economic reasons. The result is that thousands of people suffer long and chronic illnesses ending in premature

death while many babies suffer repeated illnesses before dying. Furthermore, STIs multiply the transmissibility of HIV, the AIDS virus, as much as nine fold (Lande, 1993).

Economically, STIs and their sequelea are costly to individuals and the health care system. They have caused tremendous damage to the agricultural and urban work force, eroding economic activities and family incomes due to the loss of manpower. For example, Over and Piot (1991) reported that in urban areas of sub-Saharan Africa with high prevalence of STIs, syphilis caused the loss of an estimated 9 productive days per capita per year for the entire urban population. Due to lack of available data, the situation in the rural areas is not known, but there are fears that this may be far higher given inadequate medical facilities both for diagnosis and treatment (Over and Piot, 1991; Lande, 1993). Similarly, clinics also devote much of their time to the management of patients with STIs. In parts of sub-Saharan Africa, pelvic inflammatory disease account for between 17% to 40% of gynaecological admissions to hospitals (Meheus, 1992). Many people who become infected with an STI seek treatment from private providers where they may pay one-quarter to one-third of their monthly earnings for drugs (Latif, 1992; Liskin, et.al., 1989). Socially, many women suffer the consequences of an infection. In many African societies, it is a shame for a woman to report an infection with an STI and this may attract severe social stigma. Such a woman is seen as "wayward" or a prostitute. For example, telling a husband about an infection may lead to severe beatings and divorce and husbands may abandon infertile wives. Psychologically, this causes depression due to social stigma, feelings of guilt and shame and anxiety about the possible outcome of an infection.

Studies have shown that many "classic" STIs are important not only because of their own peculiar morbidities but also because they are cofactors for the transmission of HIV, the virus that causes AIDS. Infection with chrancroid, chlamydia, gonorrhoea, herpes, syphilis, trichomoniasis, or the less prevalent STIs such as

donovanosis and lymphogranuloma venerum makes a person more likely to become infected with the human immunodeficiency virus (HIV) if exposed to the AIDS-causing virus through sexual contact (Barrasso, et.al. 1987; Campion et.al., 1985; Aral and Holmes, 1991). The World Health Organisation's Global Programme on AIDS (GPA) estimates that more than 4.5 million cases of AIDS have actually occurred world-wide and more than 1.2 million have been reported. Similarly, about 19.5 million people, many of whom are women of reproductive age have been reported to be infected with the HIV virus and also about 1.5 million children. In Africa alone, over 6.5 million adults and nearly 1 million children are infected with the HIV virus.

Two models (Anderson, et.al. 1988; Bongaarts, 1988; Laga, 1990, Elias, 1991) have been recognised in the spread of STIs. These models are important because they are significant in the development of control strategies. The first model recognises the presence of highly infected core groups of commercial sex workers and their clients and homosexual men while the second involves men and women who have a small but highly dynamic set of simultaneous or serial sexual partners. Traditional STI control programmes have focused on those in the core group, but since the spread of infection has moved beyond this group, recognising the importance of transmission through the second group is essential in the efforts to reach those who do not perceive themselves to be at risk. Adolescents, recognised as a group for whom the prevention of STIs has assumed a certain urgency given their indiscriminate sexual behaviour with multiple partners and lack of preventive measures against infection (Isiugo-Abanihe, 1993; World Health Organisation, 1993; Macieira and Nettesheim, 1994), constitute a significant proportion of those in this category.

Statistics from all over the world show that the incidence of STIs among adolescents has increased markedly in the past 20 years. Five percent of adolescents contract an STI each year and 20% of the people with AIDS probably contracted the disease during adolescence (Maciera and Nettesheim, 1994), given the long

incubation period of the virus. The control of STIs among adolescents has been difficult owing to certain behavioural factors peculiar to them. These include denial of the likelihood of contracting the disease, fear of adult recrimination if they seek information or help and the obstacle which plague all age groups such as the asymptomatic nature of many STIs. Certain structural and socio-economic factors and cultural practices also place adolescents at risk. Underdevelopment, low level of education (especially among women and girls) and a poorly functioning health care system play a role in the spread of STIs. Some girls are forced by the need to survive into prostitution and do not use effective contraceptives because of its unavailability or partner's refusal. Also, migration by men into cities in search of work, leaving behind their families, often encourages promiscuity, extra marital affairs and abandonment of social controls and traditional norms. In some societies, many young men experience their first sexual intercourse with a prostitute, while female circumcision places young women at increased risk of STIs, especially HIV transmission because of increased bleeding during intercourse. The susceptibility of young girls is enhanced by the fact that they generally know less about STIs than young men and their physiology makes them more vulnerable to transmission. Polygamy is accepted socially, so is wife inheritance and sexual intercourse with several partners increases the risk of contracting the infection.

A major problem in the control of STIs among adolescents is the lack of adequate knowledge of adolescent sexual behaviour. Adolescent sexual behaviour has been treated in an ambivalent and moralistic manner. Sexual decision making is determined by a wide range of culturally defined issues regarding gender roles, social and economic status, kinship ties as well as individual issues of maturity, experience and fertility choice. It therefore becomes important to understand the complex content specific elements of sexual decision making and behaviour among adolescents. The simplistic notion that only those in the core group (for example, prostitutes and homosexual men) are at the risk of infection has facilitated the ability

of those outside the risk groups, especially adolescents, to deny their susceptibility to sexually transmitted infections. This impression is dangerous if it leads to prevention efforts that are too exclusively targeted at those only in the core group.

1.3 Statement of the Problem

Sexuality is of fundamental significance to the society, since it is the mechanism of societal survival. Consequently, all cultures have well established, elaborate and firm rules and norms regulating sexual behaviour and all aspects of social conduct relating to sexual behaviour. Although, the norms and values regarding sexuality vary greatly across cultures, some behavioural prescriptions are similar across societies. In most cases however, a great variation exists between what society prescribes as socially acceptable (or normative sexual behaviour) and actual sexual practice. While normative prescriptions define what is considered as appropriate behaviour, everyday practice encourages behaviours that places individuals at risk for STI acquisition. Since society and socially ascribed gender roles greatly influence individual behaviour including sexual behaviour, it is necessary to examine the structural and normative patterns of adolescent sexual behaviour and everyday practice on one hand and how these affect their attitudes to sexually transmitted infections. It is also important to investigate the factors that influence these behaviours.

Several studies (Zelnik and Kanter, 1977; Onwuamanam, 1982; Gyepi-Garbrah, 1985, DHS, 1992; Makinwa-Adebusoye, 1992; Orubuloye, et.al., 1991;1993) have shown that adolescents, defined by the World Health Organisation as young people between the ages of 10 and 24 years, are sexually active. Similarly, these studies have provided evidence which show that many of them do not regularly or correctly practice contraception or take other preventive measures to avoid infection with sexually transmitted infections. Consequently, they experience unanticipated negative outcomes of this kind of behaviour (Allan Guttmacher Institute, 1979; Ann-Shafer, 1988; Ketting, 1995; Creatsas, 1995) and this commonly manifest in high rates of Sexually Transmitted Infections (STIs).

The risk of contracting STIs among adolescents is very high given that experimentation with sex and lack of adequate preventive measures are very common

among them (Isiugo-Abanihe, 1993). Many young people get initiated into sexual activities at very early ages (DHS, 1989; Ladipo, et.al., 1983; Gyepi-Garbrah, 1985) and are ignorant of the necessary information for the practice of safer sexual behaviour. Similarly, Feyisetan and Pebley (1989), Feyisetan (1991), Pilkington, et.al. (1994) and Edwards (1994), have provided evidence which indicate that for a variety of reasons including ignorance, cost, accessibility, carefree attitudes and social stigma, many adolescents do not use contraception to prevent pregnancy and infection with STIs.

Although many studies have reported that adolescents constitute a high proportion of those infected with sexually transmitted infections (Gyepi-Garbrah, 1985; Adekunle and Ladipo, 1992; WHO, 1993), very few studies have addressed the issue of how adolescents are likely to behave in the event of an infection with an STI. In order to provide an explanation for adolescent behaviour and attitude in the event of an infection, it is important to examine what likely behaviours a young man or woman will exhibit when he or she discovers an infection with an STI.

Studies have shown that the peer group is an important agent of socialisation among adolescents (Stone and Church, 1973; Richards and Light, 1986) and that the peer group has a significant influence on adolescent behaviour including sexual behaviour. Studies by Feyisetan and Pebley (1989), Feyisetan (1991), Makinwa-Adebusoye (1992) and ARFH (1994 and 1995) have shown that the peer group in most cases constitute reference points and sources of information for adolescents on matters of sexuality. Many adolescents who were interviewed in these studies indicated that they would prefer to get information about sexual matters from their friends. Since the peer group constitute important sources of information for adolescents on matters of sexuality, it is not unlikely that they will also be ready sources of information for adolescents on how to cure themselves in the event of infection with an STI. It therefore becomes important for us to understand the roles the peer group is likely to play when an adolescent is infected with an STI and in the

treatment of such infections. Issues like the specific roles the peer group play in assisting group members to solve problems of infections, the kinds of advice they give on such matters and what factors influence such advice needs to be investigated. The need for research to examine the roles of the peer group is underscored by the fact that in many parts of Africa, access to and the utilisation of modern health care facilities is hampered by many socio-economic and institutional variables.

Related to the above is the issue of how adolescents are likely to treat STI infections. It is not known why and how they seek care for infections. About 30% of the reported cases of STI infections are by adolescents (Gyepi-Garbrah, 1985). It is not yet clear how they treat such infections. What is known is that many of those who are infected can not afford the cost of adequate medical treatment (Lande, 1993) and as such may resort to various kinds of quasi-treatment methods including going to quacks, roadside chemists and traditional healers (Makiwa-Adebusoye, 1991, Adekunle and Ladipo, 1992; ARFH, 1995). Similarly, most of those who can not afford the cost of adequate health care usually resort to self medication by using cheap antibiotics which were once effective in treating these infections. Drugs such as ampicilin and tetracycline are usually administered incorrectly to cure such infections. In most cases, these only mask, rather than cure infections.

Clearly, it becomes important to investigate what happens to an adolescent who is infected and is unable to afford the cost of adequate medical care. In the same vein, the outcome of inadequate treatment through the administration of incomplete doses of or ineffective antibiotics is also important. When infections are not properly treated, the symptoms may disappear, though it is still present in the system and may have caused a lot of damage before adequate treatment is sought. There are also evidences which point to the fact that even when adolescents realise the need for treatment, they are very likely to delay seeking treatment (Fortenberry, 1995). The average number of days between noticing an STI symptom and a clinic visit was 7.5 days for males and 7.6 days for females. Females took more time to make the decision

to seek care once they noticed the symptoms than males. Why this is so needs investigation. The case of an adolescent girl presents a very pathetic picture. In most cases, infected girls are often unaware of the need for treatment because many of them are asymptomatic and may not realise the need for treatment. Even when they realise the need for treatment, they may not readily present themselves at an STI clinic, due to shame and fear of social stigma, for treatment especially where such clinics are associated with men and commercial sex workers. In such situations, they constitute sources of health hazards especially where they have multiple partners. It then becomes important to examine what happens in such cases and the adolescents perception of various treatment methods they are likely to utilise.

Partner notification is an important strategy in the control of sexually transmitted infections. The purpose of this is to find, counsel and treat sex partners of STI patients in the attempt to control the spread of STIs. However, studies have been silent on whether partners of infected individuals were notified of infection. While there are evidences that adolescents are most likely to discuss infections with other people, especially those in their peer group (Fortenberry, 1995), it still remains unknown if partners of victims were informed of infections. Even when they are informed, it is important to know why they were informed, how they were informed and when they were informed. Equally important is an examination of the factors that may predispose an individual to informing his/her partner of the infection and the reaction of such partners to the news of the infection. It is important that partners of victims be informed so that they too can be treated in case they are asymptomatic and do not realise the need for treatment. Women are particularly at risk in this regard, since many of them are asymptomatic and only get to know of their own infection when their male partners get infected, seek for treatment and notify them of a possible infection. The discovery of an infection by an adolescent girl may depend on the information given to her by her partner.

In line with this is the role of counselling which has not been properly articulated. Studies have shown that where counselling is offered, they have a potential to reduce the occurrence of STIs, increase concern for sexual partners, increase knowledge about and use of condoms, reduces mean number of partners and health costs due to hospital visits (Wynendaele, et.al., 1995). But only very few clinics offer counselling, a major component of treating STI infections (Lande, 1993). In the few cases where counselling are offered, their impact on health seeking behaviour of adolescents still remains unknown. If counselling will have any impact on behaviour modification, it would probably depend on the social context within which an individual lives. For example, the ability of a young girl to negotiate condom use will largely depend on the kind of relationship she has. If she has a dependent relationship with a wealthy and much older man, it may be quite difficult to negotiate use of the condom if her partner is not interested. Thus, there is the need to understand the role of counselling given in STI clinics and the impact they have on behaviour modification.

Existing diagnostic, therapeutic and preventive techniques for treatment of STIs need to be complemented by the attitudes of the providers. The treatment of STIs is a complex process that success, especially in the area of diagnosis and counselling, largely depends on the attitudes of the clinicians. Asking questions about sexual activity requires a lot of skill as this may determine whether an infected adolescent will tell the truth or withhold information. Similarly, if there is a difference in social status and language, adolescents may feel intimidated and may not seek care at appropriate places. Adolescents have often indicated that providers' attitudes which are often judgmental, value laden and disdainful discourage them from seeking for contraceptive services at health facilities. Where such attitudes are extended to the treatment of STI infections, (coupled with long waits at health facilities, expensive prescriptions and social stigma) many adolescents will not seek care at appropriate places and may prefer to buy over the counter drugs to treat

infections. Infected adolescents need to understand why questions on sexual activity and their partners are being asked, they need to be reassured of the confidentiality of the information they are giving, they need to be provided with empathetic counselling if it is to have any impact on behaviour. Unfortunately, many providers do not have time to do all these (Lande, 1993). It is therefore important to examine the role of the service providers in the treatment of STI infections, especially for adolescents who may refuse to seek care at clinics because of the attitude of the staff.

Sexually Transmitted Infections may have remained a problem among adolescents probably due to their attitude towards barrier contraceptives, especially the condom, and their unwillingness to take other precautionary measures. By not using barrier methods such as the condom, adolescents, especially males, underestimate the risk they are exposed to. Why this is so needs to be investigated. Indeed, Feyisetan (1991) gave a number of reasons to support this argument. In an informal interview with adolescents in Ile-Ife, several reasons were given why they do not use the condom in spite of a high rate of awareness that it is the only contraceptive that offers about 95% protection against STIs. Majority of those interviewed indicated that they care less about using the condom because it does not give the desired sexual satisfaction and because they know that the girls they slept with are not prostitutes. When reminded that it is possible for the girls to be sleeping with other men who may have the infections, they responded that this was not "their business since they were not thinking of marrying them". However, several myths surrounding condom use have been cleared. Common fears about the condom (it is not effective, it may break, it interferes with sexual pleasure) are ill founded (Contraception Report, 1995).

Several studies have observed that sexually transmitted infections are no longer a problem of the urban areas alone since they have made their incursions into the rural areas (Feyisetan, 1991; Orubuloye, 1991, 1993; Carael, 1993; Ososanya and

Brieger, 1994; Okonofua, 1995; Brabin, et.al., 1995; Boyles, 1995; Legarde, et.al., 1996;), but there is a lack of adequate data to show the actual rates of incidence and prevalence, especially among adolescents who may lack the resources and access to health care due to social stigma, fear and feelings of intimidation. Similarly, in many rural areas, there are inadequate medical facilities or virtual absence in some areas, to properly diagnose and treat cases of infections. Thus, the issue of infected rural adolescents is also important for examination. It is important to investigate what happens if a rural adolescent realises the need for treatment and is unable to afford the cost, which is usually very expensive (Lande, 1993) or there is no access to medical facilities.

1.4 Research Questions

The above issues are important and need to be examined if we are to have a better understanding of adolescent behaviour with regard to the problem of STI infection and the questions which arise from these also need to be addressed. The following questions are important in the current efforts at reducing the spread of STIs among adolescents:

What is the extent of the problem among the adolescent population? What are the likely behaviour that an adolescent will exhibit when he or she is infected with an STI? How will socio-economic and demographic factors, especially age and gender influence the attitude of adolescents toward an infection? How do victims react to being infected with an STI and how do they cope with the problems that may arise from the infections? How do they cope with the situation and what strategies are adopted? Do they inform their partners? if yes, how and when? What are the reactions of these partners to the news of the infection and of a possible infection? What implications do their reactions have for social and sexual relationships? Apart from their partners do they inform anyone else? If they do, who are these and what were their reactions? What kinds of assistance do they render to the victims and what factors are likely to influence this? How do they treat themselves? What are the channels for information on treatment of infections and how are they treated? What factors influence the choice of a treatment method? Do they receive counselling at the places where they were treated? If yes, what impact does this have on health seeking behaviour? What economic and psycho-social implications do the infections have for adolescents? Finally, how does society's structural and normative prescriptions for sexual behaviour affect attitude toward STI infections among adolescents?

Since many adolescents engage in unprotected sexual activity, they are very likely to experience infection from STIs and pregnancy. Thus, adolescents constitute the primary target group for the prevention and treatment of STIs. The absence of

knowledge on the issues raised above may hinder current efforts toward reducing these diseases and assisting those who already have the infection in receiving proper medical treatment.

1.5 Justification for the Study

The high rates of fertility in many parts of the developing world has given rise to the number of young people in the world. Accompanying this large and growing population are new patterns of behaviour which are sharp departures from the traditional norms and values of most societies. This new pattern of behaviour is aided by increasing urbanisation and economic progress and a weakness of the traditional measures of social control. The last decades of this century have witnessed a dramatic change in the sexual behaviour patterns among adolescents. There is a shift in the traditional values associated with sexuality and the result is that many young persons are having sexual relations before marriage.

Adolescent sexual behaviour has a bearing on the risk of unwanted pregnancy and the risk of contracting sexually transmitted infections including HIV. Adolescent, especially those in the developing countries have been identified as a group for whom the prevention of STIs has acquired a certain urgency, given the fact that the rates of infections among them is unacceptably high world-wide. However, one of the major problems confronting adolescent sexuality is that it is often surrounded by strict social, moral and religious beliefs, even to the extent that it is almost a taboo to openly talk about it. This has been a major hindrance to the study of adolescent sexuality and has made an objective study of the situation quite difficult. Knowledge in this area is however essential in order to understand why adolescents engage in this kind of behaviour and in providing new insights into the problems of adolescent sexual behaviour.

Although, several studies have focused on factors that influence sexual behaviour among adolescents, very little knowledge exists on the patterns of behaviour in relation to STIs among adolescents, especially how they cope with the problems of infection. There is an urgent need to know the factors which influence and determine behaviour and decision making with regard to STI infections among

adolescents especially when it has been established that they constitute a group for whom the prevention of STIs has become a matter of urgency.

This research is being undertaken to contribute to the existing body of knowledge on the issue of adolescent sexuality. It hopes to highlight the factors which influence and thus determine adolescent behaviour in relation to STIs. Moreover, it has become necessary to focus on how societal structural and normative prescriptions for sexual behaviour determine adolescent behavioural patterns with regard to STIs. It is needful also, to examine the influence of the peer group in relation to the health seeking behaviours and the treatment of sexually transmitted infections, especially where institutional and socio-economic variables hamper adolescents from seeking adequate medical attention when they are infected. The current efforts being made toward eradicating or at least reducing the spread of these infections require that programme managers and policy makers need more and new information that will provide better insight into how adolescents are likely to behave when they are infected with an STI. This study will provide the necessary information that will assist in planning and implementing intervention programmes.

1.6 Research Objectives

The issues raised above have serious implications for the spread and/or control of STIs among adolescents in Nigeria and for the current efforts toward the design and implementation of campaign programmes to combat the spread of these infections. The study is therefore designed to achieve the following objectives:

1. To provide information on adolescents' knowledge of sexually transmitted infections. Issues to be examined include knowledge of the types of STI infections, their modes of transmission and the implications that these have for health seeking behaviour will be highlighted.

2. To examine how differences in socio-economic and demographic variables (for example age, sex, educational level, pattern of residence) will influence adolescent attitude toward sexually transmitted infections.

3. To examine the patterns of sexual behaviour among adolescents and the implications these may have for the spread of STIs.

Issues to be examined include number of sexual partners, sexual network patterns, frequency of coital experience, contraceptive use, especially STI preventables, and precautionary measures taken during intercourse to avoid infections.

4. To investigate the extent of the problem of STIs among adolescents. The main issue here will be to estimate the prevalence of STI infection among the population studied.

5. To investigate the coping strategies adopted by those who are infected with STIs. In this regard, the focus will be on individual strategies adopted to cope with the problems that may arise from the infection, their health seeking behaviours and peer group influence in solving any problems that may arise when infections occur.

6. To identify the methods of treatment of STI infections commonly adopted by adolescents. Emphasis in this regard will be on the treatment methods favoured by adolescents, identifying the factors which influence the choice of a particular

treatment method, sources of information for treatment and adolescents perceptions of what constitute and ideal treatment.

7. Investigate the impact of counselling on health seeking behaviour among adolescents. In this regard, the study will investigate if counselling was provided at the clinics of places of treatment and examine the impact these have on health seeking behaviours among adolescents.

8. The study will also provide information that will aid policy formulation and the design of educational and campaign programmes to combat the spread of these infections, especially among adolescents.

1.7 Conceptual Clarification

Adolescents:

Adolescence is the transition between childhood and adulthood and extends roughly through the entire second decade of life. The age usually extends between 10 and 24 years old. The World Health Organisation distinguished between early adolescence, that is those between the ages of 10 and 15 years, and late adolescence, those between the ages of 15 and 24 years. For the purposes of this study, adolescents are defined as a group of unmarried young men and women between the ages of 15 and 24 years old.

In-School Adolescents:

This refer to boys and girls between the ages of 15 and 24 years old who are currently enrolled in a formal educational institution. Included are those who are either in a secondary school or tertiary institution but who must fall within the age range to be qualified for inclusion in the survey.

Out-of-School Adolescents:

These are those who fall within the age group but who are not currently enrolled in a formal educational institution and who do not have any immediate plans to return to school to acquire any formal education. They may however be engaged in any form of activity for example, trading, human potterage, or they may be unemployed or in apprenticeships.

Sexually Transmitted Infections:

Sexually transmitted infections(STIs) are infections that are passed from one person to another through sexual intercourse. They are also referred to as sexually transmitted diseases (STDs) or venereal diseases (VD). Although there are more than 20 different kinds of STIs, we can classify them by both the type of microbial agents responsible and by the type of syndrome which they produce (Jones and Wasserheit, 1991). The microbial agents responsible for most STIs are bacteria, protozoa, or

viruses. The common types of STIs include gonorrhoea, syphilis, chlamydia, trichomonas, candidiasis and pelvic inflammatory disease.

Prevalence:

This refers to the number of cases in a defined population at a specific point in time. In other words, it refers to the rate of infection among the population under study within a particular time frame (November, 1995 to May 1996). The estimates include all those who reported to have been infected or were reported to have been infected in the six months that the data collection lasted.

Behavioural Patterns:

Behavioural patterns refers to individual behaviour and attitude toward STIs. This include the kinds of behaviour the individual exhibits in the period before, during and after the infection and whatever the individual does either to prevent the occurrence of an infection or measures taken to cure an infection.

Coping Strategies:

This is defined as any action or measure initiated by the individual in order to cope with the problems that may result from infection. It is the totality of the of measures taken by an individual to adapt himself or herself to the inconveniences experienced during the period of infection.

Sexuality:

Sexuality is central to peoples lives and it is a social definition of a biological drive. In social context, it is determined mainly by gender roles and power relations and other factors including age and socio-economic status of individuals. Thus an individual's expression of sexuality is determined by physiology and culturally prescribed gender roles, that is, the norms and values that shape the relative powers, responsibilities and behaviours of men and women. It also prescribes what is acceptable behaviours (including sexual behaviour) and what can not be tolerated. Thus, in most African societies, premarital sexual activity among young people is not encouraged.

Health seeking behaviour:

Health seeking behaviour is defined in this context as the attitudes exhibited and actions taken by an individual in seeking care and/or treatment when infections occur.

Sexual risk behaviour:

Sexual risk behaviour is defined as those actions exhibited by the individual which puts him or her at risk or increases one's exposure to the possibility of contacting an STI infection. They include such actions as having unprotected sexual intercourse, that is, sexual intercourse without the use of barrier contraceptives like the condom, having multiple sexual partners and engaging in sexual acts which are capable of transmitting infections, for example receptive anal sexual intercourse.

Adequate health care:

In this context, it is defined as the totality of treatment or care that is administered in the event of an STI infection in order to completely cure the infection. It includes all the necessary and ideal procedure (Lande, 1993) that should normally be followed in treating both the victims and all other partners of an STI infection beginning with reporting the observed symptoms, testing, treatment of victim, partner(s) notification and treatment, counselling, referral and follow- up. Where all these are followed, an individual could be regarded as having received adequate health care for an infection.

Treatment methods:

This refer to the various kinds of treatment options that an individual resort to when an infection occur. It includes both traditional and modern methods of treatment as well as self medication. Whatever option an individual decides to take is determined by a host of factors.

Parental Upbringing

This refer to the patterns of parental upbringing to which the adolescents were exposed during childhood and throughout the formative years. In other word, it means the way a young person perceives the kind of parental supervision to which he/she was exposed when growing up. This is further classified into 3 patterns including

Permissive

Any parental upbringing which encourages a young person to freely speak or discuss with parents about his/her problems is defined as permissive parental upbringing.

Strict

This can be regarded as the opposite of permissive parental upbringing. In other words, a situation in which as adolescent feels that his /her parents or those with whom he/she grew up were not accessible for discussions on personal problems being encountered. Although, in very few cases, it does not entirely mean that such parents were not accessible, but young people brought up in this kind of condition do not always feel free to discuss sexuality issues with their parents or guardians.

Carefree

This refer to a pattern of upbringing where no one really cares about how a young person is faring in the process of growing up. In other words, young people who grew up under this kind of environment are not monitored especially in terms of what they learn and the kinds of things they do. Many of those who fall into the out-of-school category described the kind of upbringing they had in this manner.

Structural and Normative Contexts:

The structural context refer to the existing social conditions prevailing in the society. These social conditions define and regulate how people behave and relate to one another within the available social institutions. On the other hand, people in the

society do not always conform to societal expectations in the context of the expected patterns of behaviour stipulated by the social institutions. There are generally acceptable patterns of behaviour to which people readily accept as normal ways of behaviour. This is what we define as the normative context. At both the level of the society and the peer group (which serves as an important agent of socialisation for many adolescents), there are normative patterns of behaviour which are acceptable to all the members of the group. In other words, people do not always abide to the expectations of the social institutions, but more readily accept what is generally an acceptable pattern of behaviour within the normative context.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Literature Review

2.1.1 Introduction

The emergence of the human immunodeficiency virus (HIV) and AIDS as a global pandemic has increased, perhaps more than any other recent phenomenon, the need for health strategies to be based on up-to-date knowledge of the behaviours that facilitate disease transmission. The fact that sexual transmission of STIs including HIV/AIDS is the most common, if not the most efficient has made information on the patterns of sexual behaviour become important. This point is underscored by the fact that the transmissibility of HIV is accentuated in individuals with other sexually transmitted infections. In the absence of such information, understanding the epidemiology of STIs will remain very difficult and make projections about the possible future course of disease and the populations that might be affected even more tenuous.

2.1.2 Sexual Behaviour

Sexual behaviour is the least studied and most complex of all human behaviours. As a function of physical, cultural, social, economic and political as well as personality factors, it is a reflection of the society, family and individual experience. On the one hand, there is the physiological capacity to engage in sexual acts and the biological necessity to do so. On the other hand, there are external forces and conditions that impose time and situation-specific choices and opportunities for different modes of sexual expression. History, traditions, values and patterns of social organisations all determine an individual's attitude and define the types of sexual behaviour considered as appropriate and functional for the society and the limits to which variations can be tolerated. the ages at which sex is considered appropriate, with what types of partners, under what circumstances and with what quality of

fulfilment and meaning are all in some way or another dictated be these forces and conditions.

More than any other type of human behaviour, variations in sexuality occur across cultures and over time. Education, socio-economic background, family background, age, gender and access to health related information and health care services all influence the ways in which people perceive sexual behaviour, what they consider to be acceptable and normative, and what value and priority they allocate to sex.

Sexual maturity, measured by physical and endocrine development, is not in itself a sufficient indicator of sexual behaviour. Nevertheless information on changing patterns of menarche (and spermache in males) can serve as a marker of the predisposition or readiness for sexuality. In this regard, there are evidences which suggest that the age of menarche has considerably decreased in many parts of the world. This decrease has been attributed to the improved patterns of nutrition and health care in general. Over approximately 100 years, the average age at which girls experience their first menstruation (although not necessarily the first ovulation) has fallen from around 16-17 years to 12-13 years (Tanner, 1982). Similar declines in the age of menarche have been observed in some developing countries where marked urban and socio-economic differences have further suggested that nutrition and overall health status are important correlates of sexual maturation. The earlier onset of menarche deserves to be noted as an event and a process that may predispose young people to earlier sexual intercourse. Indeed, the earlier onset of maturity has been linked, although not in terms of any direct association, with reported increases in rates of unwanted pregnancies, induced abortion, premature parenthood, and STIs.

Sexual behaviour is not only linked to reproduction and to expressions of pleasure and love but may also transmit disease. To avoid unwanted pregnancies, most people in the industrialised countries make contraceptive use part of their lifestyle throughout their reproductive years. Prevention and treatment of sexually

transmitted infections require a similar degree of attention, education and integration into many people's sexual behaviour. While sexual activities in childhood are exploratory and sporadic, in adolescence, sexual concerns and behaviour become a major part of everyday life and become linked to falling in love, erotic imagery, and involvement with another person (Meyer-Bahlburg, 1980).

2.1.3 Adolescence

Adolescence is the transition between childhood and adulthood and extends roughly through the entire second decade of life. Within the context of prevention of STIs and human immunodeficiency virus (HIV) infection, adolescence is the time when behaviour patterns associated with disease transmission become established. It is the period of life when many individuals begin to have sexual relations and may become involved in so-called risk behaviour for STI and HIV infection. Adolescents also frequently begin to experiment with drugs, alcohol, cigarettes, and, in some cases, intravenous drugs (Ehrhardt and Wasserheit, 1991).

Adolescence is regarded as a time of transition between the dependence of childhood and the independence of adulthood. It is also a time when many questions are raised, questions on the past and the future. This transition from child to adult is increasingly taking place in an environment of unprecedented dramatic change. Increased urbanisation and technological revolutions in communications and travel have produced new challenges to young people. Established patterns of behaviour and the experience and advice of older people are often irrelevant in the modern context. Thus, much depends on the creativity, energy and commitment of young people themselves if new paths to development are to be found.

For many years, the health of young people has been neglected largely because they are less vulnerable to disease than children and the old. They are however highly vulnerable to the radical changes in social conditions that have occurred in recent times and which can have profound effect on their health. In many societies, changes in sexual and social mores have increased the risks of unwanted pregnancy, STIs and

the new threat of AIDS. Tobacco, alcohol and drugs are now widely available and used in many places and the propensity for young people to experiment with such substances is frequently for financial gain (WHO, 1993).

There have been dramatic changes in the relative and absolute numbers of young people. Between 1960 and 1980, the world's population increased by about 46% and the number of young people between the ages of 15-24 years by 66% of the population of Africa, 57% of that of Asia and 56% of that of Latin America. The figure for East Asia was 47% and for Europe, 35% (United Nations, 1988). The increase in the population of youth relative to the world's total population is now levelling off. By 1990 however, 29% of the world's population were in the 10-24 year age category. Of these young people, 83% live in the developing countries(United Nations, 1989).

The World Health Organisation (WHO) defined adolescence as being the ages between 10-19 years and youth as between 15-24 years. Although, there is a great variation in the timing and duration of the biological, social and psychological changes that characterise this period of transition, in most cultures, adolescence is considered to begin with puberty and even then, there are cultural variations.

A lot of changes, physical and psycho social, take place in the period of adolescence. Physically, the adolescent period is characterised by the growth spurt in which the size and the shape of the body change markedly and the differences between boys and girls are accentuated. Puberty is also a time when the reproductive capacity is established; the sex hormones secreted during this period not only affect the emotional tissues of the body, but are also related to changes in sexual and emotional behaviour. The timing of these events however shows wide variations from one individual to another. In normal boys for example, there is a 5 year age range (11-16) for age at which puberty is reached. In girls, puberty begins on the average some two years earlier and extends over a slightly shorter period (Rutter, 1979). This

is often a source of anxiety to adolescents, who are highly sensitive to the differences between themselves and their peers, especially differences in appearance.

There are also marked psycho social changes that take place during adolescence. The main change is that of the development of an integrated and internalised sense of identity which means to some degree drawing apart from older members of the family, developing more intimate relationships with peers and taking major decisions of life (Ericksen, 1964). During adolescence, there is a gradual move from involvement with groups of the same sex to mixed groups and sexual pairing may take place. Since girls mature earlier than and experience romantic interest before boys, they may start sexual activity earlier, although this depends greatly on the cultural context. This earlier maturation of girls is in most traditional societies often accompanied by early marriage, although the age at marriage is increasing in many societies. While the age at marriage is increasing, the age of puberty for both boys and girls appears to be falling and thus there is a longer period during which premarital sexual intercourse may take place (WHO, 1986) and an increasing likelihood of this happening (WHO, 1975)

During adolescence, the young person's thinking moves from the concrete to the abstract. An orientation towards the future begins in earnest (Piaget, 1972, Blum and Stack, 1985). As moral independence grows, alternative courses of action and their consequences are considered. How a young person uses this new cognitive and moral capacity is inextricably linked with the strong emotions that emerge during this time of life and with the conditions of life which will determine whether these manifestations of development are rewarded.

Stability is important for young people. Migration from city to city and country to country has increased and young migrants often encounter cultural patterns and frequently a hostile environment. The greatest challenge has been the phenomenal increase in the movement from rural to urban areas, particularly in the developing countries. While in 1975, one-quarter of the population lived in urban

areas, this proportion is expected to increase to two-fifths by the year 2000, an increase of 60% (United Nations, 1989). A disproportionate number of urban migrants are young (Oberai, 1987) and this is not surprising since the primary motive for migration is often to seek education or employment. Children and young people together account for over 70% of the total rural-urban migration in developing countries (United Nations, 1986). This move from what is often a traditional and relatively stable rural society to urban conglomerations that often lack infrastructure for family support or health care is one of the major barriers to the healthy development of young people today.

Health is defined by the WHO as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The socio-cultural context in which adolescent development takes place has a profound influence on individual health which is affected by various conditions which include the family, education, employment, spiritual development, community organisations, policies and legislation and the availability of health services (WHO,1993). Of these, the availability of health services is perhaps the most important. A healthy environment providing both support and opportunities for young people is necessary but not a sufficient condition for healthy development. Much of the responsibility for health enhancing behaviour falls on young people themselves who must increasingly take and act upon decisions of an educational, vocational and personal nature with major health consequences for the present and the future. The normal physical growth and maturation of adolescents may be adversely affected by inadequate diet, untimely or inappropriate, physical stresses on the body, or pregnancy before a young woman is fully mature. Inadequate information on which to base decisions about behaviour, inappropriate choice of behaviour, for whatever reason, and a lack of support to make the appropriate choice possible are also likely to result in risks to the health of young people.

A natural part of the process of growing up is exploratory and experimental behaviour and this is sometimes very risky. Thus, many of the health problems that adolescents and youth encounter are essentially behavioural in origin and these include substance abuse, some forms of sexual behaviour and accidents. There are evidences which suggest that problem behaviour cluster together (Jessor and Jessor, 1977; Nathan, 1985). These include alcohol and drug abuse, cigarette smoking and sexual precocity. Those who smoke are very likely to progress to marijuana, problem drinkers are more likely than others to use illicit drugs and heavy drinking and the use of some other drugs are usually accompanied by antisocial behaviour. Substance use is primarily a social rather than a solitary activity among adolescents. For example, an American study showed that 71%, 68% and 81% respectively of those using alcohol, marijuana and LSD never used them when they were alone (Bachman, et.al., 1987). Peer pressure is a significant factor in problem behaviour and may be particularly significant for the young person who comes from a divided family, lives in an unrewarding environment and is unsuccessful at school, in sport and in making friends (WHO,1993).

2.1.4 Trends in Adolescents' Sexual behaviour

In many societies, an accelerated timing in which significant sexual milestones are achieved during adolescence has been observed and the reaction of the societies to these changes also vary. In many societies however, reactions to adolescents' sexuality are usually negative with an expressed hope or implied message that it will be best for adolescents to completely abstain from sexual behaviour in order not to experience the potentially negative consequences, such as unwanted pregnancies, STIs including HIV infection and death. On the other hand, the view that sexual behaviour should be learned just like any other behaviour is not always emphasised. Rutter (1980) addresses the issue and points to the fact that sexual competence is not governed by some innate mechanism but needs to be learned.

Although the right time for adolescents to experience sexual intercourse may be controversial, almost everyone agrees that early adolescence is too young for most youth to engage in socio-sexual encounters because these may often be stressful and difficult to cope with. Adolescent sexual behaviour is usually assessed by age of first sexual intercourse and by patterns of sexual practices and number of partners.

The burgeoning sexuality associated with puberty is often seen as the starting point for the transition from childhood to adulthood. This passage may be marked by religious rites after which young people, especially girls are treated differently and are more closely supervised in their dealings with members of the opposite sex. This is because of the awakening of the sexual response system which may lead to unwanted pregnancy. Another concern stemming from premarital sexual activity among young people is the possibility of contracting a sexually transmitted infections, including the deadly HIV virus. While sexual feelings can be expressed in several ways that are not harmful to health, expressions of sexual urge is often accompanied by anxiety and anger by adults and frequently with fear, guilt and shame by the young people. These responses combine to drive both sexual feeling and sexual behaviour underground, making communication about the healthy development of sexuality within affectionate and responsible relationships more difficult.

A major problem is that adolescent sexuality is often surrounded by strict social, moral and religious beliefs and these make an objective study of the issue more difficult. However, such knowledge is essential not only in developing sound advice for people but also in deciding an effective means of dealing with its attendant consequences. In many cultures, the issues relating to adolescent sexuality is treated with a lot of caution. There is a cultural prohibition of premarital sexual experimentation. The supposed sexual urge of adolescents is not given opportunity for expression as a result of cultural sanctions and codes as well as adult supervision of the adolescent's sexual life. It has been suggested that today in Nigeria, as in many

other parts of the world, adolescents no longer adhere to the cultural "regulations" regarding sex (Elias, 1969).

In most developing countries, there is a large and growing population of adolescents. The last decades have witnessed a tremendous change in the sexual behaviour among this population subgroup. It has been found that economic progress and urbanisation have been accompanied by a shift in traditional values associated with sexuality, with the result that many young people are having sexual relations prior to marriage. In many societies, this change has occurred against a backdrop of strict traditional norms and customs and the society and family planning are as yet unprepared in terms of providing information on, and methods of fertility regulation to adolescents. In the light of this, adolescent sexual behaviour has often been beset by problems which more than ever needed to be urgently addressed. Understanding and meeting the information and contraceptive needs of adolescents is a growing area of challenge for policy makers and program planners (WHO, 1994).

Sexual behaviour of adolescents has a bearing on the risk of unwanted pregnancy and of contracting STIs. With STIs and unwanted pregnancies on the increase around the world, especially among adolescents, the study of sexual behaviour of adolescents, particularly in the developing countries has acquired a certain urgency.

Considering the differences in cultural and social values, both within and between countries, a great variation exists in the time and age at which young men and young women engage in sexual activities. Although information on the patterns of sexual behaviour among young people in developing countries is not as abundant as that for developed countries, data nevertheless suggest that similar trends have occurred and that the age at first sexual intercourse has generally decreased in recent decades even though there are relatively marked differences between countries and regions. Studies on adolescent sexual behaviour all over the world show that young people's premarital sexual encounters are generally unplanned, infrequent and

sporadic rather than on a regular basis. On the other hand, once sexual intercourse has been initiated, sexual activity is continued. Thus it is uncommon that teens become completely abstinent once they have engaged in sexual intercourse (Erhardt and Wasserheit, 1991). Although, studies are few on the extent of premarital sexual activity among adolescents in developing countries, it appears that sexual activity before marriage is more common in the developed countries and in Africa and in the Caribbean than in Latin America, Asia or the Middle East (Liskin et.al., 1985).

Ethnicity, religion, exposure to communication and place of residence are all important factors that determine much of human behaviour and patterns of human behaviour also vary according to these factors. In new and still evolving urban communities, where the roles of religion may be less marked and where new information and ideas are regularly communicated, young men and women may need to formulate their own codes of sexual conduct. In the absence of support, guidance, and traditional control they would have received from rural family systems, they may be compelled to innovate.

The postponement of the age at marriage during a period when the age of menarche and spermache has decreased has also probably contributed to an increased opportunity for multiple sexual partnerships. The geographical and social mobility of young people and the fact that they move away from families of origin earlier than ever before must also be taken into account. Young people often find themselves in new urban situations where cultural and social definitions of "acceptable" and "appropriate" patterns of sexual behaviour may be poorly structured and where "opportunistic" relationships may become necessary and possible.

While most adolescents initiate sexual intercourse during middle or late adolescence, there is another subgroup of teens who initiate sexual intercourse at a much younger age during early adolescence, a behaviour that is often associated with multiple other problems, including substance abuse and leaving school (Hayes, et.al., 1987). Obviously, this group is at particularly high risk of acquiring disease or having

unwanted pregnancies. Further, it is believed that earlier age of onset of intercourse is associated with higher number of lifetime sexual partners, although definite data in this regard is not readily available. Kinsey, et.al. (1948) documented for adolescent males who started sexual behaviour early a lifetime pattern for sexual activity than their peers who developed their sexuality at a later age. Sexual activity, however, may have been either within a single long term relationship or with numerous partners. More recent data confirm that adolescents who initiate sexual intercourse earlier have higher numbers of partners than do those who postpone coital debut, but longitudinal information was not available to indicate whether this pattern was sustained beyond the adolescent period to result in higher numbers of lifetime partners (Centres for Disease Control, 1991).

In many parts of the world, adolescents reproductive behaviour has attracted a lot of attention because of the socio-economic and reproductive health problems that usually accompany adolescent sexual behaviour. These problems manifest in unintended and oftentimes unwanted pregnancies, ectopic pregnancy, severe pains, infertility, sexually transmitted diseases and in some cases death.

The importance of adolescent sexuality as a problem that needs urgent attention has been growing as the rate of premarital sexual activity increases and many adolescents experience negative outcomes, e.g. unwanted pregnancies and STIs, from this behaviour (Burst, 1979; Edmund and Paxman, 1984). Premarital sexual activities are common among young people in many parts of the world. In sub-Saharan Africa and many parts of the developing world, several studies have extensively documented the extent of adolescent premarital sexual activities largely because of the following factors: first, adolescents constitute a significant proportion of the population in Africa about 28.7% (DHS 1990). Secondly, many teenagers, especially women, experience their first sexual activity during adolescence (FOS/IRD Macro, 1990); Thirdly, premarital sexual activity is usually associated with a

multiplicity of sexual partners. Furthermore, adolescents sexual activity is high and increasing in most African countries, Nigeria inclusive (P.R.B., 1992; Meekers, 1993)..

There is extensive documentation that premarital sexual intercourse is relatively common in many industrialised nations with the majority experiencing their sexual debut during the teen years. In the United States for example approximately 70% of women have had intercourse by the age of 18 years (Blum, 1989). Recent studies show that in Brazil, 64% of 15-17 year old men have had intercourse while 13% of women have done so (Federal University of Bahia, 1988). In the Republic of Korea, 16% of men in the 15-17 year old age group and 5% of women in the same age group reported having had sexual relations. This number increases as the age increases as 91% of men and 46% of women in the 20-21 year age category reported having initiated sexual relations in Brazil and 51% and 12% of men and women respectively in the Republic of Korea. Although data on adolescent sexual behaviour are fragmentary and limited for much of the developing world, what is available indicate that premarital sexual activity is prevalent in many countries of the developing world (Blum, 1991).

Traditional morality in most societies demand that girls remain virgins until marriage and families who are able to ensure that their daughters remain so are highly honoured. Among all the ethnic groups in Nigeria, where the groom confirms the bride's virginity, the parents of the bride are usually rewarded with gifts and the bride herself is accorded much respect among her in-laws. Premarital chastity is usually positively sanctioned in many societies while negative sanctions are usually applied to a bride who is not a virgin and even her family become objects of ridicule. As a result of this social stigma, the society attaches a considerable importance to premarital virginity. Parents therefore exercise a strong control over their daughters and prevent them from freely mixing with boys. It is not surprising therefore that in the effort to prevent girls from engaging in premarital sexual activity, parents usually give out their daughters in marriage at an early age. Other cultural practices which prevent young

girls from engaging in premarital sexual intercourse include several initiation rites which often mark the passage from childhood to adulthood. In most societies, these elaborate ceremonies are considered as significant in the life of a girl after which she is closely supervised in her dealings with the members of the opposite sex. Among other things, young girls are often instructed on the virtues of remaining a virgin until marriage.

Increasing evidence point to the fact that the age long tradition of premarital virginity is fast disappearing and that there is a gradual and pervasive erosion of the premarital sexual norms among the various ethnic groups in Nigeria as in other cultures in Africa. In fact, the study by Orubuloye and colleagues (1991) pointed to the fact that most people in the Yoruba society no longer attach any significance to virginity at marriage and that few families make any conscious effort to ensure that their daughters remain virgins at marriage. Their study revealed that only one-third of their respondents still believed in premarital virginity. Only 40 percent of the female rural respondents and 30 percent of their male counterparts were apparently virgins on their wedding night. A lower proportion of women expressed the hope that their daughters would be virgins at marriage.

Figures from this study and similar ones conducted in Benin City (Omu, et. al., 1991), Calabar (Ogbuagu and Charles, 1993), Ijebu-ode (Oyeneye and Kawonise, 1993) and Ibadan, (ARFH, 1995) confirm the gradual erosion of the traditional requirement due to the influence of modernisation and western ideas. These studies also show that younger women are more likely than older ones to have had premarital sex. In Nigeria, a girl who refuses sex, particularly for a boyfriend, is regarded as antisocial (Orubuloye, et.al., 1991). Nowadays, marriages are increasingly contracted based on emotional love and most men demand proof of fertility before marriage can be consummated. In this regard , these traditional practices and norms about virginity are bound to crumble. In spite of the fact that religious tenets frown at and preach against this habit, more Nigerian adolescents are not only indulging in premarital sex

with multiple partners, they are getting initiated into sexual activities at earlier ages than what obtained in the past.

Nigeria like other parts of the world, has been experiencing increasing sexual activity among unmarried adolescents. For example, 25.8% of adolescents aged 15-19 years and 65.5% of those aged 20-24 years are reported to be engaged in premarital sexual activity (Demographic and Health Survey, 1990). A study in Ibadan, the southern part of Nigeria, revealed that 42.5% of the female adolescents interviewed confirmed they had experienced sexual intercourse (Onwuamanam, 1982). In a similar survey of students in Nigeria, more than 20% of girls reported having had sex by age 15 while half of all those surveyed had had sex by age 16 or younger (Gyepi-Garbrah, 1985). The survey by Ladipo et.al. (1983) reported that 79% males and 53% females interviewed have had sexual intercourse between the ages of 15-24 years. For example, by age 18, 63% of women had had intercourse while at age 20, 80% had done so.

Similar behaviour has been reported among senior secondary school students in Lagos and among male and female adolescents in Calabar (Oloko and Omoboye,1993; Ogbuagu and Charles, 1993). Makinwa-Adebusoye (1992) found, in a study of adolescents aged 10-24 in Lagos, Enugu, Onitsha, Kaduna and Zaria, that 50 percent of sexually active single men and 40 percent of comparable females have had their first sexual intercourse by the 17th birthday while 72 percent of males and 82 percent of females had done so by the end of their teenage years. The study also reported that urban females indulge in a greater level of sexual activity than their male counterparts and that the mean age of first sexual activity is lower among the females than the males. Males are however more likely to have more sexual partners than the females. Almost one-quarter of males reported an average of three sexual partners. What is also evident from these studies is the extent of sexual network and partner exchange among young people. In fact, Orubuloye and colleagues (1990; 1991; 1993) have reported a high level of sexual networking among adolescents to

the extent that the society is dangerously exposed to STIs and the same applies to both the rural and urban populations. In the last 15 years studies carried out in Africa and Latin America have reported a high level of sexual activity among unmarried young adults (Feyisetan and Pebley 1989; Ladipo et.al. 1983; Morris 1994).

Available data also indicate that the age at first sexual intercourse has decreased in recent decades in developed and developing countries (United Nations, 1989; 1988). Age at first sexual intercourse varies considerably among countries and regions. Data for the developing countries are limited, it appears, from what is available, that sexual activity before marriage is more common among women in developed countries and in Africa and the Caribbean than in Latin America, Asia or the Eastern Mediterranean (Liskin, et.al., 1985).

Several factors have been identified as contributing to the phenomenon of premarital sexual activities among adolescents. In almost all regions of the world, these factors are similar except for minor variations across regions and these may be explained by cultural practices. Some of these factors are discussed in what follows. Education, among several other factors have increased the age at which young men and women get married. Many young adults who are delaying marriage, however are not delaying sexual activity. In Nigeria, the median age at first sexual intercourse is 16 years, three-quarters of a year earlier than median age at marriage. By age 18, 63% and by age 20, approximately 80% of women have experienced intercourse (NDHS, 1990). Continued education and delayed marriage may be partly responsible for increase in age at first intercourse. However, early sexual activity is more likely to be unprotected leading to teenage pregnancy and early motherhood (Abramson, 1983).

In the Ekiti study, Orubuloye, et.al. (1991) presented data on the reasons why many young people engage in their first acts of sexual intercourse. Young men often report having multiple sexual partners and having intercourse with casual acquaintance. In contrast young women usually report that they had their first and

subsequent sexual relationship with a steady boy friend or fiancee. Among the reasons put forward by adolescents for initiating sex are "enjoyment", "curiosity", "because others are doing it", and "to show love" probably in anticipation of a marriage proposal. A substantial number of adolescents are also engaging in sex for material or financial rewards and this is most common among students who are in secondary and tertiary institutions. Included in this category are those girls who are unemployed and usually solicit for sex in return for money. Even though these women can not be aptly referred to a prostitutes, the line between them is very thin indeed and for the purpose of disease transmission, there is hardly any difference (Isiugo-Abanihe, 1993).

The increase in adolescents premarital sexual activity may not have led to increases in the rates of unwanted pregnancies and STIs were it not associated with a multiplicity of sexual partners and a low rate of contraceptive use. Several studies have indicated that many adolescents who are sexually active are doing so with two or more partners, including commercial sex workers. The study by Orubuloye and colleagues (1991) show that in the Ekiti District of Ondo State, about 85% of ever married women who had experienced sex before marriage had two or more sexual partners before marriage. The picture obtained in the rural areas showed little variation to that obtained for the urban areas. Similarly, Makinwa-Adebusoye's study of reproductive behaviour among boys and girls in Nigeria (1991) showed that 32% of girls and 57% of boys who had had premarital sex had two or more lifetime partners. Oguntimehin (1992), Oni (1992), Ogbuagu and Charles (1993), Oloko and Omoboye (1993), Oyeneye and Kawonise (1993) have also indicated the practice of having multiple partners among sexually active adolescents in several parts of Nigeria. The study carried out in Ibadan among in and out of school adolescents also reveal that many adolescents irrespective of their level of education are involved in the risky behaviours of having sex with more than one partner (ARFH, 1995). There is no significant difference between the sexes. They all show that more women than men

are having multiple sexual partners, although there is no way to ascertain whether a lower proportion of women had more than one partner or whether women were reluctant to report the number of sexual partners they had due to the social disapproval such a behaviour is likely to attract.

Added to the issue of multiplicity of sexual partners is the low adoption of contraceptive methods, particularly the condom and this has facilitated some of the negative outcomes they usually encounter from this behaviour especially unwanted pregnancies and the transmission of STIs among the adolescent population. Studies have reported that in spite of the reported high rate of premarital sexual activity among this age cohort, contraceptive practice is very low (see for example Nicholas, et.al., 1986; Feyisetan and Pebley, 1989; Makinwa-Adebusoye, 1992;). The Contraceptive Prevalence Survey and the Demographic Health Survey have shown that there is a growing awareness of contraceptive options in even the most remote corners of the world. It should be noted however that mere awareness of contraceptive method does not assure knowledge about how to use or how to obtain them. Women are almost certainly under reporting their knowledge and use of modern contraceptives (Bleek, 1987). Still, the data show relatively high levels of knowledge among the youngest women, but far fewer levels of usage. Among women of 15-19, reported knowledge of modern contraception, as well as local sources for obtaining it, varies widely across regions (Carballo, et.al., 1993). For example, in a study of oral contraceptive use among females students aged 15-19, 92% of all those interviewed were aware of the method, yet only 17.5% had ever used it. Post -coital pills were the most popular (Adinma and Okeke,1993). Similarly, studies conducted among adolescents in Nigeria revealed that while 60% of female and 57% of male had heard of a method, only 19% of female and male respectively had ever used a method. Single men reported a higher knowledge than single women (Nicholas, et.al., 1986; Feyisetan and Pebley, 1989; Makinwa-Adebusoye, 1992).

For a variety of reasons, which include an unmet need, lack of access, the result of socio-cultural and religious barriers and ignorance, many teenagers are not using contraceptives. Like adults, many young people have a negative attitude to contraceptive use due to the myth and misconception surrounding it. For example, among students who participated in focus group discussion in Nigeria and Kenya many had heard about contraceptives but cited erroneous dangerous side effects (Baker and Rich 1992). Also Ozumba and Amaechi (1992), reported that 42% of female students in Enugu objected to contraception. 61% of these believed that contraception causes infertility. An explanation for high rates of unwanted adolescents pregnancy is teenagers' sporadic and incorrect use or non use of contraception (Zelnik and Kanter, 1979). Consistent contraceptive use among adolescents in sub-Saharan Africa is low and much less frequent in comparison to adolescents from the developed parts of the world. Moreover, young teens are less likely to use contraception than older adolescents at first sexual intercourse. Adolescents are less likely to use contraception than older couples, even within marriage. The most common reason that young people, both males and females, give for not using contraception is that they did not except to have intercourse and the second most common reason is that they did not know about contraception (Kiragu 1991, Morris 1992).

Adolescents lack of information and access to contraceptive services is compounded by government restrictions on minimum age or husband authorisation and by social disapproval of premarital sex and contraceptive use (Daly et al. 1994). Even among those who are aware of and use contraceptives, use is very irregular (Macro International, 1994). It was discovered that nation-wide, of the 5.9% of 15 to 19 year old females currently use contraception, two thirds use traditional methods including rhythm or withdrawal. One percent use oral contraceptives and less than one percent use condom, foaming tablet or IUCDs (NDHS, 1990). The positive changes towards condom use among teens have important implications for STI and

HIV prevention efforts. They strengthen the argument that prevention can work even with a highly vulnerable group such as teens having their first sexual intercourse.

Any consideration of the potential for STIs also needs to take into account the mediating effects of condoms. In the context of the AIDS pandemic, condoms have received increasing attention by public health prevention programs. Patterns of condom use, however, have traditionally been variable and within countries. Before the AIDS pandemic, there had not been much active promotion of condoms outside of family planning programs, and even within these, other contraceptive methods had become more common because of their greater perceived use-effectiveness and social acceptability. Among adolescents, and other young adults, both single and married in the developing countries, oral and other contraceptive methods are, as a result, more frequently used than condoms.

Across regions, and especially in sub-Saharan Africa, there are reported low rates of condom use among teenagers. A variety of reasons may account for the low rates of condom use in Africa, among them have been concerns about their pricing, their continued availability and distribution, and the fact that many people see them as foreign to the mores and values of many local African cultures. Perhaps, in part responding to this, the majority of family planning programs in general has been limited irrespective of the contraceptive method in question. While familiarity with condoms has increased in many regions (Goldberg, et.al., 1989), there is little evidence that use patterns in sub-Saharan Africa are changing. Recent evidences continue to indicate low use patterns. In all the literature reviewed, marked differences in awareness and use of condoms have emerged; in general, familiarity with the condoms and their use is higher in urban communities than in rural areas. This may reflect the differences in education, exposure to information about condoms, and the availability of family planning services.

In Nigeria, the few young people who are using condoms are doing so for pregnancy and not disease prevention (Jinadu, 1992). Through informal discussions

with some adolescents, Feyisetan, (1992) found that there is a low prevalence of contraceptive use among adolescents because many of them are not aware of its efficacy for disease prevention. Many adolescents also do not use condoms because they feel that it prevents them from deriving maximum sexual satisfaction. When asked if it is not more expedient to guarantee protection against contracting AIDS and other STIs than to derive maximum enjoyment from sex, many of them responded that "because we relate to girls of our age who are not prostitutes, the possibility of contracting AIDS or any of the other STIs is remote". When reminded that it is possible for their so-called mates to be having sexual relations with older men who may in turn be having sex with prostitutes, many of them responded that they cared less who the girls slept with since "we are not thinking of marrying them anyway". Only a few of the male respondents indicated a desire to use condoms, and even these complain of lack of access to the traditional family planning clinics where they could obtain the methods. The cost of the methods is another important factor that was mentioned as inhibiting the use of the condoms among males while the females feel that if they insist that their boyfriends use condoms, they may decide to dump them.

2.1.4 Consequences of Adolescents' Sexual Activities

The high rate of sexual activity among adolescents coupled with a low use of contraceptives have serious implications for the reproductive health and social well-being of adolescents. These implications often manifest particularly with respect to unintended and unwanted pregnancies and sexually transmitted infections.

Unwanted Pregnancies and Abortion

There are a number of reasons why unmarried girls are relatively unsuccessful in avoiding unwanted pregnancy. First, sexuality is a taboo subject in most societies, and young adolescents in most cases have very little and sometimes incorrect information about contraception or the basic facts of conception. They are naturally impulsive and are less likely to plan than adults and so the act of intercourse may be

as unexpected as the subsequent pregnancy. In many countries, it is illegal to offer contraceptive advice to anyone who is unmarried, especially adolescents. Even where it is legal, many young people, for fear of a hostile reception and social sanction from older members of the public who disapprove of premarital sexual activity, are less likely to consult appropriate healthcare services because of their own ambivalence and fear of disapproval and the sensitivities and peculiar needs of adolescents are not well catered for in many countries.

Half of all pregnancies are unplanned and a quarter certainly unwanted (WHO,1994). A large number of these unplanned, and unwanted pregnancies belong to adolescent girls. Unwanted pregnancy is a major public health problem with potentially serious consequences for the health of the young girl since in most cases the immature girl is exposed to the hazards of pregnancy and childbirth or possibly an abortion done under unsafe conditions. An unwanted pregnancy may lead to induced abortion, which in the case of an inexperienced or ashamed adolescent is likely to take place later in the pregnancy and involve greater risks to life, health and future fertility. If the procedure is illegal, as it is in most African countries, it will probably be performed under unsafe conditions, thus increasing the risk even further.

The proportion of adolescents who seek abortion rather than continuing an unwanted pregnancy has been increasing especially among younger adolescents between 15-17 years of age (United Nations, 1988). In most developed countries where abortion is legal, the rates have fallen considerably, particularly among older adolescents between 15-19 years and this is due to a greater use of contraceptives (Tietze and Henshaw, 1986). In most countries of the developing world, where abortion is illegal, the extent of abortion among young women has not been properly documented. The main source of information on this issue is hospital records of women treated for complications of abortion and evidence from this points to a high rate of abortion in the younger age groups.

Various studies in Kenya (Aggrawal and Marti, 1982), Mali (Binkin, et.al., 1984), Zaire (Tshibangu, et.al., 1984), Liberia (Woods, et.al., 1985), Congo (Locko-Mafonta, et. al., 1986) and Nigeria (Adetoro, 1986) reveal that between 38% and 68% of women seeking for treatment for abortion complications are adolescents under age 20. Illicit abortion involves major health risks. Young women are at greater risk of severe complications of abortion because they often wait until well into the second trimester of pregnancy (Tietze and Lewit, 1972) and the risk associated with abortion at this stage of the pregnancy is four times higher than before the twelfth week (Russel, 1986). The complications most likely to arise include pelvic infection, haemorrhage, uterine perforation and tetanus. Left untreated, many of these complications can result in sterility, structural damage to the reproductive organs or death. A Nigerian study showed that 16% of all maternal deaths were due to adolescent abortion (Omu, et.al., 1981). The single most likely group to seek induced abortion in case of pregnancy are female students. Very few data exist on the extent on contraceptive use by young men. Available information suggest however that there is a low utilisation.

Sexually Transmitted Infections

Another potential consequence of unprotected sexual activity in adolescence is the acquisition of a sexually transmitted infection, often with devastating consequences on future fertility. The incidence of STIs among adolescents has increased considerably in the last 2 decades (WHO, 1986). Accurate data on the prevalence of STIs among adolescents are scarce, but given the extent of premarital sexual activity and the casual nature of their sexual relations, one would expect a high incidence (Isiugo-Abanihe, 1993). In fact the WHO reports that about one in 20 adolescents world-wide contracts a sexually transmitted infection every year. An even higher percentage of adolescents may be affected in the developing world, where STIs are more prevalent. Limited testing for STIs in Nigeria, Kenya and Sierra-Leone found that between 16 and 36 percent of adolescents had one or more STI.

STIs are the most common group of communicable diseases reported in the majority of countries and they continue to occur at unacceptably high levels, particularly among young people (De Schryver and Meheus, 1990). For example, in the United States, the highest rate of gonorrhoea infection is reported among young women under 20 years of age while young men have the second highest rate. In the developing countries, adequate data on the extent of the problem particularly among young people are not available, but there are strong indications that the disease is also widespread.

In many developing countries, STIs have become major public health problem for a number of reasons. The first has to do with the demographics of the developing countries where majority of the population are adolescents and we know that the adolescent period is a time of intense sexual drive and experimentation and for this reasons they are more susceptible to STIs. For example in Zaire, young women were found to have a higher rate of chlamydial infection than women in other age groups (AIDSCaptions, 1993).

Secondly, increasing urbanisation is a major feature of most developing countries. Urbanisation has led to increasing migration of men without women in the urban centres and so there is an unequal distribution of women in the urban centres. This in turn may lead to an increase in commercial sexual activity. Many women also tend to have inadequate educational and economic opportunities. This factor drives many women into prostitution in order to be able to support themselves and this, especially in the case of young girls, increases their susceptibility to STI infection.

The health infrastructure in many countries are not adequate enough to treat the cases of STIs. In some extreme cases they are simply non-existent. In this situation, STIs can not be effectively treated and there are also high rates of complications and sequelae because infections remain untreated for a long time. These problems are compounded by the fact the inexpensive antibiotics that were useful in the treatment of STIs are no longer effective. There is increasing resistance

to these common antibiotics. Effective treatment now requires more expensive antibiotics which many infected individual can not afford. Changes in sexual and social behaviour as a consequence of urbanisation, industrialisation, mass communication and ease of travel are factors that have contributed to this public health problem. Young people between the ages of 10-24 years constitute both an important target group and a potential force for the prevention of STIs.

STIs are usually contracted when an infected partner has unprotected sex with a partner who is not infected, especially with casual partners and commercial sex workers. Models of disease spread have pointed to the fact that unprotected sex with many partners also increases the likelihood of contracting the infection. For instance, Oni (1992) and Oguntimehin (1992) have shown evidences which suggest that respondents who are very likely to report an STI have had more than one partner.

In many developing countries, health care for adolescents is not priority and adolescents receive the same health care provision as adults. Millions of young adults around the world become infected with STIs every year (Bernal et. al., 1989, Donovans 1993). STIs are most prevalent in young people under age 25 (Hatcher, et. al., 1989; Cates and Stone, 1992). In sub-Saharan Africa 67% of AIDS cases and 80-90% of HIV infections are estimated in children (Global programme on AIDS). However HIV infection strike young people disproportionately and has a profound impact on families and national economies (De Cock, et al, 1994). Adolescents in the 20-24 year age group have the highest rates of infection and this is followed by those in the 15-19 year age group and 25-29 year age groups. Where STIs are major health problem, the incidence tends to be higher among the female population aged 15-19 than in men of the same age group. Among sexually active young people, STIs are most frequent in the youngest.

Untreated STI can cause infertility in both men and women .The consequences can be particularly devastating for young women and their children. Young adults are particularly vulnerable to STIs including AIDS because most of them know too little

about STIs even if they are sexually active (Adekunle and Ladipo, 1992, Maguwa and Ngugi 1992). Even when adolescents know about STIs, they rarely use any preventive method against infection, in particular the condom which for now is the most effective method for preventing the transmission of STIs (Gracia et. al., 1992; Egger et. al., 1993). In addition there is a low use of contraception thereby exposing them to a high risk of contracting STI including AIDS (Onwuamanan, 1982; Gyepi-Garbrah, 1985; Makinwa- Adebusoye, 1992; Orubuloye et. al., 1992).

Adolescents who are unmarried are more likely than older married couples to have multiple partners and thus are at a greater risk of exposure to STIs. Thus, the frequency of STIs is most likely to be higher among single, divorced and separated persons than among married people. Individuals from low socio-economic backgrounds as well as prostitutes have the highest rates (WHO, 1993). Although overall morbidity rate is higher for men than for women, the complications caused by the infection are generally much more severe in women. This is partly because men tend to seek diagnosis and treatment earlier than women because the symptoms are more obvious.

Most STIs in women are asymptomatic so the women do not realise the need for care. Moreover, most of the facilities for treating STIs in the developing countries are targeted at men and so women feel embarrassed to seek care at these facilities even if the need for treatment arises. In some cases, the laboratory and diagnostic resources that one needs to treat women are not available. Treatment of STIs in men is much more straight forward because most men have symptoms and seek treatment. In some cases, men are also asymptomatic, but it is clear that majority of women are asypmtomatic and the resources to diagnose and treat them are inadequate.

The list of complications associated with STIs has grown considerably during the last 10 years. This is because many previously unsuspected and late complications have become apparent. These complications include the sequelae of pelvic inflammatory disease (PID), genital cancers, infection of new-born babies and infants,

narrowing of the urethra and infertility in men (De Shryver and Meheus, 1990). Among women treated for PID, 20% experience infertility or ectopic pregnancy because of tubal damage (Westrom and Mardh, 1978). Infertility caused by infection is now recognised as a serious problem throughout the world. In Africa, almost 50% of women seeking evaluation for infertility had bilateral tubal occlusion mostly attributable to STIs (Collet, et.al., 1988). A number of cancers including cervical, penile and anal cancer are highly correlated with the human papillomavirus infection (De Schryver and Meheus, 1990).

Three of the major obstacles to the control of these disease among adolescents are the ignorance of young people of the symptoms of STIs, the asymptomatic nature of some of the STIs, particularly in women, and the reluctance of young people to ask for help because they expect to be met with anger and hostility (Friedman, 1989). Two of these diseases, genital herpes and acquired immunedeficiency syndrome are at present incurable. The former may have severe psycho social effects on the individual because of its unpredictability and the risk of infecting others, the latter because of its devastating and deadly nature and the reaction of others to infected people.

AIDS is a major concern for young people. The number of diagnosed AIDS cases among adolescents and young people severely underestimates the threat posed by HIV infection, given the long incubation period of the disease. At least half, and probably the majority of HIV infected people will develop AIDS within 10-15 years of becoming infected. Thus, it can be assumed that most young adults with AIDS were infected during their teens. All over the world, between 20% and 25% of HIV infections are estimated to occur among young people and it is clear that young people in many countries account for a large proportion of AIDS cases (WHO, 1993).

In the world as a whole, heterosexual intercourse has rapidly become the dominant mode of transmission of the virus (WHO, 1992). As a result, in the developing countries, there are already as many newly infected women as men. In

Africa, there is a relatively consistent preponderance of HIV infections in sexually active women in the 15-24 year age range compared with men of the same age (Chin, 1992). HIV is transmitted among young people primarily through unprotected sexual intercourse. The second commonest mode of transmission among young people is through the sharing of contaminated equipment by injecting drug users. HIV infection among this group has been reported from over 50 countries (Des Jarlias and Carballo, 1993). Perinatal transmission (from mother to her infant) is also increasing; often young women only discover they have an infection when their babies become sick and are diagnosed as having AIDS. Transmission through contaminated blood transfusion has been virtually reduced in developed countries and is being reduced in developing countries.

Girls and young women are particularly vulnerable to HIV infection ; they are likely to marry older and more sexually experienced men, they often have less access to education and less power in negotiating sexual matters, including safer sex, and they may be unaware of having a sexually transmitted infection, which is a co-factor in HIV transmission. Sexual violence towards women is also common. About 20% of girls in the 12-19 year age category sampled reported that they were physically forced at the time of their first sexual intercourse (Bostwana YWCA and WHO, 1992).

Furthermore, increasing numbers of young people are homeless and live on the streets, where they are confronted with a lot of danger and violence including the need to make money to survive. These expose them to the risk of HIV infection. In countries severely hit by the AIDS epidemic, the rise in the number of deaths in the adult population has led to an increase in the number of orphans and street children (UNICEF, 1990). In the light of this, many young people are affected by AIDS even if they are not physically infected; children and adolescents whose parent die of AIDS face the double trauma of bereavement and stigmatisation, with consequences for their emotional and mental health. They also tend to leave school at an early age, as they have to provide and care for the family (WHO, 1993).

The ambivalent attitude of adults towards young people's sexuality is a major obstacle to programs aimed at preventing HIV infection and STIs. Young people need to be aware of the possible consequences of unprotected sexual intercourse and use of injecting drugs; even more, they need to develop skills that will protect them from infection, such as how to resist pressure for unwanted sexual intercourse and sharing of injecting materials, how to negotiate safer sex, and how to practise it through the use of condoms. It is increasingly recognised that prevention of HIV and STIs among young people is most effective when set within the context of activities to promote sexual health.

The duration of urban residence appears to be an important correlate of STIs (Gemert, 1972). The rates of incidence are much more higher in the cities than in the rural areas, although the absence of laboratories and qualified health personnel in the rural areas make it more difficult to determine the importance or the incidence of these diseases there (Arya, et.al., 1977). In rural settings STIs are less common and less easily treated than in the city. Their prevalence can thus be higher there even though the incidence may be low. In the cities, the situation is inverse, there is a low prevalence, but the incidence is higher due to contagion and are more readily treated. However, where the interchange between the city and the rural areas is extensive, or when people migrate far away from their homes, the rural areas can be a vast reservoir of STIs (Arya, et.al., 1980). For example, in cases where men migrate to acquire education or look for jobs in the cities and then return home, they become facilitators of STIs contracted in the cities which are then introduced into the rural populations. In other cases, circulation only involves the rural locales (David and Voas, 1978).

Clearly, STIs and their resulting reproductive tract infections compromise women's ability to achieve and sustain pregnancy; infertility, ectopic pregnancy and chronic pain for non-pregnant women; fetal wastage, low birth weight and congenital infection when RTI occur during pregnancy. As fertility performance, bearing and raising children is a determinant of a woman's status, and since the ability to

reproduce is so important for the woman, STIs are provoking divorce, marital instability, sexual mobility in cases where a woman is unable to achieve and sustain pregnancy and these further enhance the spread of STIs.

It has been acknowledged that all over the world, STIs pose serious major public health problems. In Nigeria, although the studies of STIs in Nigeria are few and far between, conclusions made from available data suggest that STIs constitute a great medical, social and economic problem and that apart from the heavy affliction of urban dwellers, there is increasing evidence that it is also spreading to the rural areas. The situation, according to Ogunbanjo (1989), is serious enough to attract government attention so that necessary control measures could be initiated promptly to avert more serious consequences.

The seriousness of the problem of STIs is, perhaps, best reflected in the infertility consequences of complications associated with their infections. For example, Osoba et. al. (1973) found that of the 151 infertile women attending a clinic at the University College Hospital Ibadan, 1.32%, 20.5% and 26.6% were infected with gonorrhoea, trichomoniasis and candidiasis, respectively. In a subsequent study of 308 male STI patients at the same Teaching Hospital, Alausa and Osoba (1978) found that 33 had complications which were associated with gonorrhoea, non-specific urethritis (NSU) and trichomoniasis infections. Of the 33, 13 were in infertile states. Similarly, Adekunle and Ladipo (1992) suggest that pelvic inflammatory diseases (PID) probably accounts for more than half of all cases of infertility seen in Nigerian clinics and that the most common causative organisms are *Neisseria gonorrhoea* and *Chlamydia trachomatis.*

The foregoing is perhaps a reflection of the situation in Nigeria. Currently, the Nigerian society is undergoing changes in sexual behaviour especially among adolescents and these changes are associated with increases in the number and prevalence of STIs in both the urban and the rural areas. Although a comprehensive

national statistics is not available, studies that have focused on the phenomenon indicate a serious trend in the prevalence and incidence of STIs. Gonorrhoea, Genital herpes, candidiasis, trichomonas, syphilis and chlamydia are among the widespread and easily recognised STIs in Nigeria.

2.2 Theoretical Framework

2.2.1 Introduction

The task of social science, according to Charles Warriner (1970) is to emphasise "action as the ultimate reference for our ideas of man, as the source of all our basic data about man, and as the focus of our questions about man". Human beings act, and from this action we can come to understand both the individual and the group. It is from a consistency in action over time, for example that social scientists are able to infer personality and it is from a consistency in action between actors that a group or society is inferred. We can also infer change in individuals or group from their actions. The action orientation says that persons and societies are to be known through what they do, are to be postulated from continuities in action and conduct and that both persons and societies are equivalent inferences from these observations. The goal of this section is to provide an explanation for human sexual behaviour and behaviour toward the problem of sexually transmitted infections from the action perspective. Behaviours are derived from human actions and since according to the action perspective all meaningful actions are social acts, an important clue to the understanding of human behaviour is to understand the motives behind their actions. Sexually transmitted infections are a social problem and the explanation for its cause lies in the behaviour of individuals, their sexual behaviour. It is within this context that this study hopes to provide an explanation for the problem of sexually transmitted infections, particularly among adolescents. Two variants of the action perspective within which this explanation is made are the theory of social action that is readily associated with Max Weber and the voluntaristic theory of action as emphasised by Talcott Parsons.

In explaining why human beings act the way they do, it is necessary for us to understand the reason for action, that is, locating the cause of an act. In the attempt to locate the cause of an act, we may ask the question "why did he do that?". Three answers seem logical to this question: (1). He did it because he wanted to do it, he

did it intentionally, he chose to do it, or (2) he did it because some personal characteristics- attitudes, needs, self-image- forced him to do it, or (3) something in his environment made him to do it.

To see action as developing over time, as part of a larger stream of action is to become aware that although a certain intention that one had at one point may have been initiated in a direction of activity, other intentions and goals entered in at other points that a multitude of factors, some in the environment, including other people, some in the individual's definition of the situation, altered the direction of the action several times over. The environment constantly changes and the individual engaging in any activity in relation to it is constantly redefining it and self in relation to it. Both personal traits and environment may be factors influencing what we do in any stream of action.

Humans act to achieve goals in situations, to solve problems that confront them. In effect, they engage in a stream of complex action, the direction of which shifts because of a number of variables. To understand any given act therefore, it is necessary to analyse the major factors that enter into and lead a stream of action in one direction rather than in others. Individual traits and environmental factors must be understood, but these do not assume a static character and many other factors must also be considered, especially the significant others, reference groups, perspectives, mind, activity, role taking, self analysis, self judgement, identity, self communication, etc.

2.2.2 Social Action

Social action, including failure to act or passive acquiescence, may be oriented to the past, present or expected future behaviour of others. It may be motivated by a number of situations, including the need for revenge for past attack, defence against a present or future aggression and solving a particular problem confronting an individual.. The 'others' may be individuals or groups which may or may not be

known to the actor. It is important to note that not every kind of action is social action. If for example action is solely oriented to inanimate objects, it can not be regarded as social action. If on the other hand, subjective action is meaningfully oriented to the behaviour of others, that is it takes into account how others to whom the action is oriented are likely to react, then it constitutes social action. Thus, behaviour with regard to sexually transmitted infections can only be regarded as social action if it takes account of the behaviour of others (e.g. a sexual partner and significant others). In addition, action can not assume a social character if it is not meaningfully oriented to the behaviour of others. In addition, social action is not action that is identical with the similar actions of other persons or with action influenced by other persons and neither can action be social action if it is merely the result of the effect on the individual of the existence of a crowd as such and the action is not oriented to the fact on the level of meaning. Finally, mere imitation of the action of others can not be considered social action if it is purely reactive such that there is no meaningful orientation to the actor imitated. The mere fact that a person employs some useful procedure which he learned from someone else does not constitute social action. On the other hand, if the action of others is imitated because it is fashionable, traditional, exemplary or lends social distinction or on similar grounds, it is meaningfully oriented either to the behaviour of the source of imitation or of a third person or both.

The most commonly used definition of social action is that action is social action when the individual orients his or her acts to others besides self. Action is social in the sense that we act, to a greater extent, for others as well as for ourselves. Others make a difference to us when we act, that is, we take others into account. We are influenced in our actions by other people's presence and we try to influence other people's actions or we try to influence their view of us. Max Weber is most responsible for this definition of social action. It is, according to him, action oriented to others, action meant to have some influence on others as well as on one's self, a

process Blumer (1953) called 'taking others into account'. Weber's position about human action is clearly demonstrated in his famous definition of action:

> *In action is included all human behaviour when and in so far as the acting individual attaches a subjective meaning to it. Action in this sense may be either overt or purely inward and subjective; it may consist of positive intervention in a situation, or of deliberately refraining from such intervention or passively acquiescing in the situation. Action is social in so far as by virtue of the subjective meaning attached to it by the acting individual... it takes account of the behaviour of others and is thereby oriented in its course* (Weber, 1968).

From this definition, social action then is action that takes others into account. It is obvious that not all human behaviour is action; for example, the accidental collision of two cyclists is a natural even and not social action, but any attempt made at avoiding such a collision is akin to social action. In the same vein, the response of a group of people to a particular phenomena, e.g. putting up umbrellas when it is raining is a response to rain and not to each other, so it can not be regarded as social action. Action that is not therefore oriented to the "other" can not be regarded as social action. Action may also be oriented not to a single individual but to collectivities like a group of people or to a particular system in the society. Social action then is action influenced by the presence of the other and it is action with others in mind. It is usually an attempt to communicate something to others, however subtle. Action can only be social action when the other people we have in mind are able to make meaning out of our actions.

For Weber, in order to explain action, we must interpret it in terms of its 'subjectively intended' meaning, something quite distinct from its objectively valid meaning. In other words, for any action to be social action, there must be reason (cause) for conducting the action. A person's action is to be explained in terms of the

consequences he intended it to have, the purpose, rather than in terms of its actual effects. The purpose of an action and its actual effects are sometimes at variance, therefore it is necessary to grasp the ends the actor is pursuing and how he perceives that he can achieve them. We can see the import of Weber's emphasis on the need to understand the motive for an action in the light of W.I Thomas "understanding of the definition of the situation". Cohen (1968) gave a good example: what is the significance that can be attached to why a man is touching his toes by his bedside early in the morning? Does the action have a religious or therapeutic significance? We can only know by asking him his purpose or by inferring from our previous knowledge of behaviour in his society.

In this regard, it is important to understand the motive (purpose, goal or cause) behind individual sexual behaviour. Similarly, the behaviour exhibited by a victim of sexually transmitted infection also involves an end which the actor intends to achieve. For example, the subjective meaning that determines the choice of alternative choice of treatment must be understood within the context of the actor's expectations. This subjective meaning must be understood in order to provide and adequate explanation of why action is oriented in a particular way. In other words, an adequate explanation of why an adolescent engages in a particular type of sexual behaviour (for example having multiple sexual partners, or engaging in high risk sexual behaviour like having casual unprotected sex with a prostitute) or why he chooses a particular type of treatment method in case of infection must be located within the subjective meaning (or purpose) that he attaches to his action.

The establishment of a subjectively intended meaning provides a causal explanation of action. This is true not only in the sense that choices once made take their place among the causes of later actions, but in the sense that the end in view is a cause of the present actions. An essential feature of action is that it precedes the effect, but it is not always the case that the cause of an action is not exactly its intended outcome but the mental experiment of anticipating its consequences in

advance before implementing the action. According to Schutz (1972), the actor pictures that projected act as completed seeing the situation as 'it would have become' if the action has the consequences that he expects it to have. This is described as the in-order-to motive as distinct from the genuine because-motive. In other words, action is taken based on the outcome of an experience which had occurred in the past.

In pursuing a goal, the actor rationally calculates the available means and chooses the most appropriate one in terms of cost and benefit. Weber insisted that the simplest forms of action to explain in terms of the subjectively intended meaning are those which involve the fully conscious and rational adaptation of the available means to ends in view. He sought to build a typology of action in which he thought it best to treat non-rational and emotionally governed action as a deviation from ideal rationality. He distinguished four types of action, beginning with two variables of rationality, Zweckrational and Wertrational.

Zweckrational (intended or purposive) action is determined by expectations as to the behaviour of objects in the environment and of other human beings; these expectations are used as "conditions" or "means" for the attainment of the actors own rationally pursued and calculated ends. What this means is that the actor weighs one against the other, not only the means available for attaining a given end, but also the costs and benefits of using those means for one end or another and finally various ends themselves. When for example an adolescent is infected with an STI, the need for treatment (purpose) informs his course of action. The choice of one out of several alternatives involves a rational weighing of the costs and benefits of each and the choice of the most appropriate one to achieve his desired end.

Wertrational (value) action is determined by a conscious belief in the value of something for its own sake of some ethical, aesthetic, religious or other form of behaviour, independently of its prospects of success. The various means toward ends may be weighed against each other, but the end itself is not questioned, it is accepted

as binding and absolutely good. The two non-rational types are affectual and traditional action. Action is affectual when it is directly under the control of the emotions; it may be an uncontrolled response, anger for instance, but it is meaningful only if orientated towards some social object. The last type of action is the traditional action and this is determined by ingrained habituation.

Although these typologies are useful, they are beset with a number of criticisms. For example, the actions we actually observe in the society are very frequently a mixture of the pure types. The action of the Protestant entrepreneurs are both a combination of zweckrational and in so far as they also express rigid religious and ethical principles are also wertrational. Even conceptually the boundaries between the four types are not so clear. The emotions are not easily cordoned off, separate from other actions. This is especially true when the conscious intention conceals even from the actor himself his true subconscious motives. It is also not clear why traditional action was assumed to be residual: action determined by ingrained tradition, for in the work of anthropologists, it has been proved that many seemingly irrational customs are actually rational in terms of native cognitive systems. Neither can traditional action be habitual since if the claim is that something had always been done in a particular way, the tradition becomes absolute value thereby taking the nature of wertrational action.

The problem that confronts the action perspective is, how much of human behaviour can be explained as self directed purposive action and how much as determined by established social patterns? For example, habit is not necessarily associated with traditional action. If we habitually do something, it is in no sense traditional. In many instances, the original motive for initiating a rule or arrangement may be lost sight of, or the motives may change.

It is important to note therefore that in real life action takes place in situations of uncertainty. The actor does not always plans his actions in a situation of complete subjective certainty. His knowledge of the situation may be objectively incomplete,

there may be a discrepancy between subjectively intended meaning and objectively valid meaning.

It is within this perspective that we seek to understand what determines the choice of a particular mode of behaviour which assists the actor to achieve his goals. It is important to understand the implications which such actions also have for other people toward which the action is oriented. An explanation of behaviour in the context of the possible meanings given to it by the acting individual will thus be made. Various possible meanings, explanations and reasons which informs individual behaviour with regard to sexually transmitted infections have been suggested in literature. These include lack of information, ignorance, socio-economic factors, availability of and accessibility to health facilities, etc. Similarly, actions oriented toward the behaviour of others, for example, non use of condom in a high risk sexual activity have been explained in terms of inaccessibility, inability to negotiates use and in so many instances, male dominance and the relative powerlessness of women.

2.2.3 Voluntary Social Action

Talcott Parson's (1937) theory of Voluntaristic Social Action is the second major theoretical model within which this study will provide an explanation for human behaviour. The work of Talcott Parson is important when we consider the various shades of social action theory particularly in explaining how the process of socialisation influences the individual in his action. In "The Structure of Social Action", Parsons demonstrated that the previous writers who are well known in the action frame of reference have been converging towards the voluntaristic theory of action, which Parsons himself advocated as a general sociological perceptive. The voluntaristic theory of action can be traced back to not only Weber and Durkheim, but also to early writers before Parsons including George Herbert Mead, Charles Cooley and W.I. Thomas.

The theory, although taking its root from the social action theory, is nevertheless different and its major premise can be summarised as follows:

1. People's actions are directed toward the achievement of ends, goals and objectives,
2. People select the appropriate means and procedures from those available, to attain their ends,
3. Courses of action are constrained by the conditions of the physical and social environment,
4. Individuals have emotions and make moral judgements which influence the selection of ends and means, as well as their order of priority,
5. Finally, actions are to be explained by the subjectively intended meaning given them by the actor, or roughly, by his perception and definition of the ends and conditions of his situation.

The most important point to note in Parson's work is the emphasis on how society influences the ends which the actor seeks and the means he will use in attaining them. This theory is similar to that of Weber in that it states that "actions can be explained in the context of the subjective meaning given to it by the actor and that actions are always directed at the attainment of goals with the choice of the most appropriate method by the actors". The major departure from Weber is emphasis on the importance of societal factors (social norms) in constraining the ends which an individual can pursue and the means that can be used in pursuing them. The important thing to note is how society influences the subjective meaning which the actor attaches to his action and the means for attaining them. Inherent in this is the fact that the ends which an individual seeks may be set for him by his cultural environment.

In this regard, it would be assumed that behaviours relating to particular patterns of sexual behaviour, (for example, having multiple sexual partners), decisions about the methods of treatment and coping strategies adopted by victims of STIs are

all determined within the context of societal norms and values acquired through socialisation. From this perspective, it is obvious that in explaining behaviour, an understanding of how societal norms and values determine how behaviour is oriented, the extent to which it does and the implications they have for the attainment of set objectives are also important.

Without doubt, societal factors to a large extent determines behaviours in several ways. First the society provides the context in which behaviours are shaped and conducted and to a great extent it determines the particular social environment and individual lives in. The available opportunities, the role models, the reinforcement contingencies that further shape behaviours, the social norms perceived, the beliefs, attitudes and values and the self perception of an individual are for the most part influenced by his social environment and this in turn affect behaviour (Wallace, 1988). While the influence of the societal factors and the socialisation process can not be denied, there are several criticisms of what Dennis Wrong (1961) described as the over socialised concept of man. One of the most important is the rather mechanical conception of social norms and their place in the determination of action. Norms and values were increasingly seen as rigid and unambiguous standards. They form patterns of institutionalised normative culture which the individual takes as given and internalises, introjects or just learns and thereafter behaves in obedient conformity to them. Once internalised, normative culture seems to have the status of a repertoire of behavioural computer programmes, the appropriate one being called up not by self reflexive thinking individual, but by external stimuli in each situation. In other words, approved patterns of behaviour are institutionalised in patterns of culture and internalised into personalities.

2.2.4 The Action Frame of Reference in Perspective

The Action perspective has in its various forms, been very widespread in sociological research, however, the strengths and weaknesses of this perspective can be

seen in sociological explanation of crime and deviant behaviour for example. The work of Merton on deviant behaviour (1968) emphasises on means and ends, which is the central focus of the Weberian social action theory. Merton argued that culture has a central role to play in the means and ends which members of the society tries to pursue: *culture defines certain legitimate objectives for members of the society, things worth striving for* (ends) *and there are commonly accepted rules and norms which define the means that can be legitimately employed to attain these goals* (means). However, in many societies, while the goals tend to be generally accepted, the opportunities are unequally distributed for all members of the society to pursue these goals. Because of the widespread disappointment which follow, members of the society who do not have access to these opportunities are likely to adopt a number of ways to adapt to these frustrating situations.

To explain behaviour, it is clearly necessary to examine the individual in his immediate social context and in relation to general societal values. As Cloward and Ohlin (1960) argued, it is not only opportunities generally considered legitimate which are socially structured and unequally distributed, opportunities for illegitimate activities are also unequally distributed in society. This idea, though immediately relating to crime emphasise the importance of 'subcultures'.

People are socialised not only into one culture common to a whole society, but into the innumerable subcultures found in complex societies. The series of studies immediately related to this position had to do with attempts to explain reasons for criminal behaviour, these studies concluded that delinquent acts were largely concentrated and confined and that most delinquent acts were committed in company of other delinquents and gangs that usually support themselves in delinquent acts. We can therefore reasonably conclude that the likelihood of a person behaving in a particular way is related to opportunities for learning the techniques and patterns of that behaviour and from receiving encouragement from associates. Similarly, Sutherland's differential association theory, though applied to criminal

behaviour was intended as a general explanation of how patterns of behaviour are learned and acquired. For example, factors known to be associated with crime, e.g. poverty, bad homes and personal quirks have only a causal relation to crime only as they affect the persons associations. The techniques, motives and rationalisation required for such a behaviour are learned just like any other behaviour in immediate face-to-face encounters.

2.3 Research Hypotheses

To guide specific aspects of the study, the following were adopted as our hypotheses:

1. Sociodemographic characteristics will significantly determine adolescents' sexual behaviour patterns and attitudes toward STI infection.
2. Male adolescents will exhibit risky sexual behaviours that may facilitate the transmission of STIs.
3. While awareness of the various types of STIs will be high, young people will exhibit very little knowledge about their symptoms.
4. The media and peer groups will constitute the 2 most important sources of information about STIs for adolescents.
5. Adolescents will generally under estimate their risk of exposure to infections and would therefore not take adequate preventive measures to avoid infections.
6. Gonorrhoea will be the most common infection reported by young people who are infected.
7. Patterns of infection will show little variation between urban and rural respondents.
8. Once infected, many adolescents will self medicate first before seeking medical help elsewhere.
9. Cost will be a major determinant of health seeking behaviour for infected adolescents.
10. Young people who are infected will generally not notify their partners nor seek treatment for them.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Background Information

The focus of the study was to determine the prevalence of sexually transmitted infections among adolescents and to understand their behavioural patterns, coping strategies and health seeking behaviour when they are infected. In addition, the study sought to establish the patterns of sexual behaviour among adolescents and the implications these may have for the spread of STIs among them and also, to determine and understand the factors that may be responsible for any discoverable differences in adolescents' behaviour with regard to sexually transmitted infections. In this regard, the study attempted to highlight existing differences (if any) between urban and rural adolescents' behaviour in relation to sexually transmitted infections. Consequently, it was necessary to undertake a comparative study among rural and urban adolescents in Oyo State. Adequate efforts were made to ensure that the selected sample was representative of both in-school and out-of- school adolescents in the state. Two types of survey, a general survey and a clinic survey were conducted. The general survey attempted to establish the knowledge, attitude and practices of adolescents to the issues under study, while the clinic survey endeavoured to understand behavioural patterns, coping strategies and the health seeking behaviour of those with a history of STI infection. In addition, focus group discussions, case studies of infected adolescents and in depth interviews among policy makers and implementors were conducted.

3.2 Research Design

A total of one thousand and two hundred adolescents were interviewed in both surveys.

One thousand adolescents, males and females in the 15-24 year age group, were interviewed in the general survey. The respondents included both in and out of school adolescents and those in this category were chosen because studies have identified a high prevalence of premarital sexual activity and lack of barrier contraceptive use among them. The rationale for the general survey, conducted among the general adolescent population was to gather information on the likely behaviours an adolescent will exhibit if he/she is infected with an STI. Moreover, since the study seeks to provide information on the current level of adolescent knowledge, attitude, beliefs and practices, it became necessary to conduct a general survey so that the current situation with regard to the issue of STIs among adolescents, and their understanding of the patterns of disease transmission as well as the factors which put an individual at risk, can be highlighted.

For the clinic survey, a total of 200 male and female respondents in the 15-24 year age category, who were identified to be currently infected or have a history of STI infection, were interviewed. The respondents included both in and out of school adolescents. In this case, interviews were conducted in selected hospitals or health facilities (both modern and traditional) located in the study areas. Those included in the clinic survey were those currently receiving some form of treatment or those who were attending the hospital for the first time. The rationale for the clinic survey derived from the need to understand adolescent health seeking behaviour, particularly, the behaviour of those who had an infection and what they are likely to do to cure themselves. In this regard, we wanted to understand the factors that may influence a particular course of action which an infected adolescent will resort to. Furthermore, since the period of infection may constitute a crisis period, it was

necessary for us to understand how infected individuals coped with the crisis and the measures taken to resolve the crisis.

In the urban areas, respondents were interviewed at the Special Treatment Clinic of the University College Hospital, Adeoyo State Hospital at Yemetu and some traditional STI clinics located around Beere, Oja Oba, Isale Ijebu, Mokola and Agbowo areas of Ibadan. In the rural areas, all the respondents, except 5 were interviewed in the various health facilities, including traditional healers' clinics. The only 5 who were interviewed at home were those who declined to be interviewed at the health facilities and requested that interviews should take place in their home. All the 5 respondents were out-of-school males.

A number of respondents identified to have been infected at one time or the other were also invited to participate in the case studies that were conducted. Out of the 200 respondents that were interviewed at the health facilities, 10 percent or 20 persons were interviewed as case studies. Fourteen respondents in this category were interviewed in the urban areas and the rest were interviewed in the rural areas. Respondent's selection was on the basis of willingness to participate in the study. In other words, only those who gave their consent to being interviewed participated in the case study.

In the course of the data collection, it became necessary to conduct focus group discussions in order to have an insight into some issues that emerged during the survey and to understand adolescents' perception of these issues and why they behave the way they do. Consequently, a total of twenty focus group discussions were conducted in the various study areas. FGD sessions were held for all the categories of adolescents involved in the surveys. Separate FGD sessions were organised for groups of adolescent boys in school; boys out of school; girls in school and girls out of school in each of the study areas. In other words, 4 FGD sessions were organised in each of the study area making a total of 20 FGDs. An average of 8 adolescents participated in each discussion session. In addition, in depth interviews were conducted for policy

makers and policy implementors. The rationale was to gather more information on the issues under study from the perspective of those responsible for adolescent health and development. In depth interviews were conducted in all the study areas.

3.3 Research Instruments

The data collection was done with the use of four methods.

The questionnaire is the principal method used for data generation during the survey. Two types of questionnaires were designed for the study. The first was the questionnaire used for eliciting information during the general survey. This questionnaire was divided into four parts. The first part contained questions on respondents' demographic and household information. The second and third sections of the questionnaire elicited information on sexual behaviour and knowledge, attitude, beliefs and practices, history of STIs, peer group influence, sources of information on the various STIs and treatment methods, etc. The final part of the questionnaire dealt with issues relating to knowledge and use of contraception among the study population. The rationale for this is to be able to find out the extent to which the respondents have knowledge of, and have used contraception as barrier methods for preventing STI infection.

The second questionnaire was used for the clinic survey. The questionnaire was divided into two parts. The first part dealt with questions on socio-demographic and other background information about the respondent, while the second part covered issues dealing with respondent's sexual behaviour, sexual history, knowledge of STIs, history of STI infections, sources of information about STIs and the treatment methods, the role of peer group in health seeking behaviour especially during the period of infection, coping mechanisms and survival strategies, socio-economic implications of STI infections, kinds of treatment methods and the factors influencing the choice of a particular method of treatment.

Apart from the questionnaires, the case study approach was also utilised. This entailed the use of a guide that generally focused on how the respondent contracted and detected the infection, health seeking behaviour, perceptions of treatment, factors which influence the choice of treatment, socio-economic implications of treatment cost and other issues which arose during the discussion. A tape recorder

was also used to record verbatim, the respondents answers to all the questions that were asked. Observation of respondents at the health facilities was also used.

Similarly, discussion guides were also developed for the focus group discussions and the in depth interviews that were conducted.

3.4 Selection of Research Respondents

Of the 1000 respondents that were sampled in the general survey, half of these (or 500) were selected in the urban areas and the other half were chosen from the rural areas. The total number urban respondents (500) was equally divided between male and female respondents. In other words, 250 male and 250 female respondents were selected in the urban areas. In selecting the male respondents, half of the total number of male respondents (125) were selected among in-school respondents and the other half selected among out-of-school respondents. The same respondents selection procedure was adopted in the rural areas.

For the clinic survey, 200 respondents, comprising 100 males and 100 females were selected. In the urban area where we interviewed 100 respondents, 50 males and 50 females were selected. A similar procedure was adopted in the rural areas.

3.4.1 Sampling Procedure

A multistage sampling technique was utilised to select the respondents for the general survey. The first stage involved a purposive selection of all the study areas, that is Ibadan Municipality (from where we selected two out of the five LGAs; Ibadan North and Ibadan Southeast) as the urban areas and Ifeloju Local Government Area and Ogbomosho South Local Government Area were selected as the rural areas. By this purposive selection, it was ensured that adolescents residing in both urban and rural areas of the state were represented in the study.

The second stage involved a random selection of enumeration areas (E.As) in all the selected study areas. In this case, a list of all the enumeration areas (based on the 1991 Census delineation exercise) in the selected LGAs was obtained from the National Population Commission. In Ibadan, where 2 LGAs were selected, a random selection of 2 enumeration areas from each LGA was made and in the rural LGAs, that is, Ifeloju and Ogbomosho South, 2 enumeration areas were selected in each

LGA. In other words, a total of 8 enumeration areas (4 urban and 4 rural) were selected in all the study areas.

A combination of simple random and systematic sampling techniques were used to select 500 respondents from the urban areas and 500 respondents from the rural areas. These were equally divided between in-school and out-of-school (250 in each category) adolescents. In other words from each E.A, 125 respondents were selected. Of these number, 63 respondents (31 males and 32 females) were selected among in-school respondents and 62 respondents, equally divided between males and females, were selected among the out-of-school respondents.

In each E.A, 63 in-school respondents were selected by a systematic sampling technique from one coeducational school identified in the area. Where there were more than one coeducational schools, a simple random technique was used to select one school from where the respondents were interviewed. In each selected school, the total number of arms per class, from Junior Secondary 3 to Senior Secondary 3, in the school was taken into consideration. This was then divided by the total number of students to be sampled (63) in order to determine the number that will be selected in each arm. Using the class attendance register, systematic selection of respondents per arm was made.

A combination of cluster and simple random sampling technique was used to select the out of school respondents. Selection was made from markets, mechanic villages, motor parks and other trade centres in each enumeration area after the area had been divided into clusters by economic activities. Clusters were selected by simple random and the respondent selection was also a by simple random technique. Interviews were only conducted after the respondent had given his/her consent to participate in the study. In each area, a total of 62 respondents, equally divided between males and females were selected to participate in the study.

For the clinic survey, a simple random sampling technique was utilised to select 100 respondents from the urban areas and an equal number from the rural

areas. These were also equally divided between the males and the female respondents. Of all the respondents interviewed in the urban areas, 70 were interviewed in the Special Treatment Clinic at the University College Hospital and the rest were selected from Adeoyo and the other traditional STI clinics that were identified. In the rural areas, a similar sampling technique was used to select 50 respondents from each of the LGAs in the selected health facilities, mostly the traditional STI clinics. Where a respondent declined to be interviewed, we proceeded to the next willing respondent. This procedure continued until the desired sample size was achieved.

In all the study areas, sampling for both the focus groups and Case Studies was purposive. In other words, participants selection was on the basis of their willingness to participate in the discussion sessions or case interviews.

3.5 The Field work

Activities towards the field work began at the end of December 1995 when the researcher embarked on pre-survey visits to all the study areas that were previously selected. The purpose of the visits was to familiarise the researcher with the selected enumeration areas in all the local government areas where the surveys would be conducted.

Before the commencement of the survey, it was decided that the survey should first be conducted in all the selected urban areas in Ibadan before embarking on those in the rural areas. This decision was to facilitate the data collection exercise and to ensure that the researcher was present in all the study areas during data collection.

The recruitment and training of research assistants for the Ibadan survey was conducted in December. The training involved 30 (15 males and 15 females) undergraduate students of the University of Ibadan who were recruited to serve as research assistants. A team of three consultants, including the researcher, facilitated the training sessions. Training lasted for one week and during the period, the research assistants allocated to specific local governments were taken on a familiarisation visit to their assigned LGAs. At the end of the training exercise, only 20 of those trained (10 males and 10 females) were employed to participate in the data collection.

A pre-test of the research instrument was also undertaken in the selected urban LGAs after the training exercise. The pre-test lasted for 2 days after which the need for a retraining of the research assistants became necessary in order to address the peculiarities of this particular research. The whole training and pre-test exercise lasted for 2 weeks.

Data collection for the general survey in all the urban LGAs commenced simultaneously after the training exercise. In each L.G.A., four interviewers and a supervisor, who co-ordinated the activities were assigned to conduct the interviews among the out of school adolescents in each local government area. The interviewers

worked in pairs consisting of a male and a female. The males interviewed male respondents while the females interviewed female respondents.

Different approaches were adopted in conducting the interviews for the in-school and out-of-school respondents. Before the commencement of the interviews for the out-of-school respondents, the interviewers were instructed to seek the permission of the boss or the most senior person, if it was a trade centre. Similarly, they were to seek the consent of anyone they selected for interview. The method of interview adopted for the out of school respondents was such that the interviewers administered the questionnaires. In other words, the interviewers conducted interviews and assisted the respondents in completing the questionnaires. This method ensured that all the questionnaires were properly and adequately completed and there was a very high rate of response and return, although there were a few cases in which selected respondents declined to be interviewed or in some cases did not finish the interview. Each interview lasted for an average of 40 minutes.

In the schools, the researcher first sought the permission of the school authorities to interview the students. In each school, we approached the Principal, and after introducing ourselves and the purpose of the study, we asked for permission to interview the students. When permission was granted, we then selected the respondents using a systematic sampling technique that was discussed above. In all the schools, interviews with the respondents were conducted using the self administered method but with a modification whereby the researcher adopted the technique of guided self administration. In this case, after the respondents selection procedure (sampling) has been completed, the selected respondents were assembled into two separate classes, one for males and another for females where the interview exercise took place. The sitting arrangement was such that the respondents were well spaced, ensuring that there was no close proximity between the respondents. Thereafter, the questions were read out to the respondents, one after the other. This was done in order to ensure that all the respondents had a similar understanding of

the questions before they were asked to choose the options which they felt were the correct ones or that which best expressed their opinions. Respondents were asked to fill the questionnaires with pencils in order to minimise the problem that could emerge during the editing of the questionnaires. The advantage of this method was that it facilitated the administration of the instrument among in-school respondents, saved a lot of time and there was a 100 percent questionnaire return rate. An obvious disadvantage, however, was that the questionnaires were properly completed thereby necessitating a lot of editing before data entry. Interviews in this case lasted an average of 50 minutes to one hour.

After the data collection exercise in the urban areas, the research team moved to the selected rural LGAs to commence the survey activities. The method of recruitment and training adopted in the urban areas was also used in the recruitment and training of interviewers in the rural areas. The need to recruit and train a new set of interviewers for the rural areas arose because most of the research assistants that worked in the urban areas could not go to the rural areas due to university examinations which were due to commence at that time. Thus, it became necessary to recruit and train another set of research assistants to work in the rural LGAs. The same method adopted during the training in the urban areas was also used to select and train 20 research assistants. However, after the training and the pre-test, data collection commenced. Unlike the urban areas, data collection in the rural areas did not go on simultaneously. This was to ensure that the researcher was available at every area where data collection was going on. The interview methods adopted in the urban areas for in-school and out-of-school respondents were also adopted in the rural areas.

Interviews for the clinic survey lasted for three months. At every health facility where we conducted the interviews, we first examined the records of the place for the last six months prior to the survey. This was done in order to determine the extent of the prevalence and incidence of the problem of STIs among adolescents. Although,

most of the health facilities in the rural areas (mainly traditional) had no records, we had to rely on the operator of such a facility to recall or estimate the number of those who had reported for such illnesses. This method did not however prove particularly effective in getting a correct figure of those who had reported for such illnesses in the last six months. All the 1200 questionnaires administered were retrieved. After the collection of all the questionnaires, they were edited and prepared for entry into the computer.

Focus groups in all the study areas lasted between 45 minutes to 1 hour, 10 minutes. The shortest, of about 45 minutes, was the one conducted among out-of-school females in one of the rural areas, while the longest, of about 1 hour, 10 minutes, was conducted among male undergraduate students in one of the tertiary institutions in the study areas. Each focus group was moderated by a facilitator who was assisted by a note taker. In conducting the focus groups., care was taken to endure that the facilitator and note taker were people of the same sex with the target audience. This was done in order to ensure that participants had no inhibitions in freely expressing themselves. At the end of each discussion session, participants were provided with light refreshments and some money to augment their transportation.

3.6 Method of data processing and analysis

3.6.1 Quantitative Analysis

All the 1200 questionnaires administered during the survey were retrieved. After sorting by location and place of interview, the questionnaires were cross checked and verified for accuracy and consistency and were thoroughly edited. The editing produced a total of 977 consistent and properly completed questionnaires for the general survey and 200 questionnaires for the clinic survey, that were used for the analysis. Computer entry of all the edited completed questionnaires was handled by experienced data entry clerks who were trained to further familiarise them with the instrument used for the survey. The Epi Info 6.2 (Dean, et.al., 1994) data entry module was used for the entry of the survey data. After the entry, data were cleaned and analysed by the principal researcher working in collaboration with a computer analyst and programmer. The Statistical Package for Social Sciences (SPSS-PC) (Norusis, 1990) was used for the descriptive (including univariate, bivariate and where necessary multivariate) analysis. Weights to account for the sampling design were calculated. These weights took into account the probability of selecting each unit (enumeration areas, clusters, schools or work places and individual respondents) at every stage of the sampling procedure. They were also used to adjust biases due to non-response and to compensate for subgroups which were underrepresented among survey participants. The complex survey data analysis module of the Epi Info 6.2 was used to calculate weighted means and tests of significance. The extent of the association between two variables was reported in terms of the odds ratios. If variables are not significantly related, Epi Info reports a 95% confidence interval inclusive of a value of one and if variables are significantly related, a 95% confidence interval excluding the value of one is reported. Although odds ratios and confidence intervals are not indicated, if the association between variables is insignificant, it is

reported as such in the text. The percentages and means reported in both the text and tables are the weighted results.

3.6.2 Qualitative

The tapes and notes from the focus group discussions were analysed with the use of the Text Base Alpha after discussions conducted in the local language had been translated. Common responses within and between groups were identified for each topic included in the focus group discussion guide. In addition, divergent responses were identified to determine the range of beliefs, opinions, knowledge, attitude and behaviours among participants. Responses to each topic were summarised and important quotations are reported verbatim to highlight common individual views.

The results of the case studies and in-depth interviews were analysed in a similar manner. Common responses elicited from the individual cases were summarised and collated for topics of interest and discussed. Findings from both the focus groups and the case studies were used essentially to supplement the findings and the discussions arising from the qualitative data.

3.7 Profile of the Study Areas

The study was carried out in Oyo State, Nigeria. In selecting the study areas, two main settings, a predominantly urban one and a predominantly rural one were selected. The decision to choose these settings was informed by the comparative nature of the study between urban and rural adolescents in order to highlight noticeable and significant differences, if any, that may exist in their behaviours toward sexually transmitted infections. Moreover, the rural adolescents were included in the survey because very few studies have attempted to investigate how rural adolescents are likely to behave when confronted with an STI infection. Consequently, Ibadan, the capital city of Oyo State was selected as the urban area, while two villages, one in Ifeloju Local Government Area and the other in Ogbomosho North Local Government Area of the State were selected to as the rural areas.

3.7.1 Ibadan

Ibadan was selected as the only urban area because it is the most urbanised centre in Oyo State. It is one of the largest indigenous metropolitan areas in sub-Saharan Africa and serves as the administrative headquarters of Oyo State. The city, geographically located on Longitude 7° 20' and 7° 40' East of the Greenwich meridian and on Latitude 3 ° 35' and 4° 10' North of the Equator, is about 142 kilometres by road from Lagos. The city's location is such that it is a major road transport route to most parts of Northern Nigeria.

Historically, the city was founded around the 19th century, precisely in 1829, by Ife and Oyo Yoruba warriors who came to settle on its present site in search of security from the various inter tribal wars which characterised the period. These were followed by other immigrants who also fled for similar reasons of security. The growth of Ibadan into a large city is probably as a result of the open door immigration policy maintained by Oluyole, who later became it's leader and also because of it's strategic

location in the forest region and it's nearness to the grassland.. This open door immigration policy coupled with it's geographical location, encouraged several people from other Yoruba towns to migrate and settle in the area. Due to this large population, the city became a central market for the exchange of trade between other Yoruba towns, including Ife, Ijesha, Oyo, Ijebu and Abeokuta. Since then, the population of Ibadan has grown steadily. By 1829, the population of Ibadan was estimated at about 100,000 (Imoagene, 1976). Subsequent population censuses put the figure at 175,000 in 1911; 327,359 in 1921; and 459,196 in 1952. Figures form the 1991 population census put the present population of Ibadan at about 1,222,570 people (1991 Provisional Census Result, National Population Commission, Federal Republic of Nigeria.).

A number of factors were responsible for the growth of the city. First, the city is strategically located as a major rail and road network and this facilitated the exchange of goods and services among various people from far and near. Due to it's large population size and strategic location, it became convenient to designate the city as the administrative headquarters of the then Ibadan Province and later, the capital of the old western region of Nigeria. This new status further encouraged the presence and establishment of governmental institutions and projects in the city. Other factors, arising from the first is the establishment of industrial and commercial concerns and these led to the growth of Ibadan as a major centre of commercial, industrial, educational, social political and health institutions. Government policies also contributed to the growth of the city and especially it land use composition. For example, the unguided pattern of development in the city was arrested by the Ibadan Planning Authority when an interim development plan, which produced the current pattern of land use into residential, industrial and commercial purposes, was put in place.

Economic activities in the city ranges from traditional local industries to large scale industrial concerns. Economic activities such as weaving, dying, wood work,

pottery, soap making metal work and black smithing could be found in most areas of the city. Other common economic activities include men and women trading in commercial activities, car cleaners, road side mechanics and artisans. Medium and large scale industrial concerns include engineering, saw milling, metal industries, feed mills, tobacco, soft drinks, glass works, gas cylinder manufacturing and brewing industries. All these serve as sources of employment for the large number of people living in the city. Ibadan is also a centre of educational activities. The first university in Nigeria, the University of Ibadan, the State Polytechnic and several research institutes are among the various educational institutions in addition to a large number of primary and post primary institutions established all over the city. Major markets in the city include Sango, Bodija, Oja-Oba, Beere, Oje, Mokola, Alesinloye, Agbeni and Gbagi. These offer a wide range of household, food, textiles and other traditional goods in addition to some light industrial goods. The Agbowo shopping complex is one of the numerous modern shopping complexes which offer a variety of imported consumer items.

The residential structure of the city can be divided into three homogenous groups. These are the core, the periphery and the intermediate areas. The core area is usually the traditional area of the city and it is characterised by high population density, lack of physical planning and abundance of dilapidated buildings. The peripheral area include such areas as the Bodija Housing Estates, the University of Ibadan, the Jericho and Iyaganku Government Reservation Areas and other emerging well planned areas of the city. Those who live in these areas include university lecturers, professional, top civil servants and wealthy businessmen. The area is characterised by well laid out residential apartments, low population density and the availability of essential social services. The intermediate areas include areas like Molete, Oke-Ado, Mokola, Eleyele, Agbowo, etc. among others. These are areas of late development and are mainly inhabited by migrants from other Yoruba towns and other ethnic groups or those who moved out of family compound houses which were

once favoured at the inception of the city . Population density here is moderate than those of the traditional areas and housing is also moderately scattered although, these are not well laid out as those found in the peripheral areas. Apart from Yorubas from other towns who reside in these areas, people from other ethnic groups that also reside in the areas include the Efiks, the Igbos, Hausas, etc. and these live in identifiable areas. For instance, the Igbos live mainly in Mokola, the Hausas in Sabo and the Ijebus live mainly around Oke-Ado. Health care needs of the residents of Ibadan is taken care of by the University College Hospital, two State Hospitals and several private medical facilities in addition to traditional medical practitioners scattered all over the city. Finally, social activities in the city is comparable with what is found in most urban areas in Nigeria with the presence of night clubs and other recreational centres.

Ibadan metropolis used to be under one local government; the Ibadan Municipal Government, but with the creation of new states and new local governments by the Babangida administration in 1991, the metropolis became divided into five separate local government areas and these are Southeast, Northeast, Southwest, Northwest and North Central, with Mapo, Agodi Gate, Oluyole, Onireke and Bodija as the headquarters of the newly created local government areas. Respondents for the survey were drawn from selected enumeration areas in two of the five local government areas, Ibadan North and Ibadan Southeast.

3.7.2 Ifeloju Local Government Area

Ifeloju Local Government Area, with it's capital at Igbo-Ora, is one of the 24 LGAs in Oyo State. It is situated to the south of Oyo State and it is on the boarder between Oyo and Ogun States. It is predominantly a rural local government area and the major preoccupation of the people is farming, although a number of other commercial activities are undertaken. In the local government area, a village, Tapa was selected as the study area. Tapa is a small farming community and it is one of the

seven Ibarapa towns that make up the LGA. It is situated about 20 kilometres to Igbo-Ora . The village is a small community of between 2,000 to 3,000 inhabitants and less than 600 households. The village has only one primary and one secondary school and a market square which also doubles as the main motor park for boarding vehicles to neighbouring villages. The in school respondents were selected from the only secondary school, while out-of-school respondents were interviewed in the market/motor park. The village has a non-functional electricity and access to information is through the ownership of a battery operated transistor radio which many of those we interviewed claimed they have access to. Access to health care is through patronising several unregistered traditional medical practitioners operating all over the village while the only modern health care facility is the primary health care clinic located in the middle of the village while access the nearest comprehensive health care facility is at Igbo-Ora at the University of Ibadan College of Medicine rural health centre at Igbo-Ora.

3.7.3 Ogbomosho South Local Government Area

Ogbomosho South Local Government, with headquarters at Arowomole area of Ogbomosho is also one of the 24 LGAs in Oyo State. Although, the capital of the LGA at Arowomole is a major centre of commercial activities by virtue of it's been located on a major road transport route to the northern part of Nigeria, but apart from this, the LGA is mainly composed of villages, scattered between the boundary of the LGA with Oyo and Ogbomosho North Local Government Areas. In the local government, Oolo, a village about 20 kilometres from the capital of the LGA was selected as the study area. Oolo, like Tapa is a predominantly farming community with a total population of less than 3,000 inhabitants. The village shares several similarities with Tapa, having only one coeducational secondary school and one primary school and a non functional electricity. Unlike Tapa, there is no functional primary health care clinic and there are only four or five traditional medical

practitioners in the village. The major economic activity is farming, but unlike Tapa, commercial activities, which consist only of buying and selling takes place only on a market day in a week, when people from adjourning villages and even from Ogbomosho come to buy farm products. Respondents for the study were selected from the only secondary school and from the main market in the village.

3.8 Problems Encountered

The major problems encountered in the study were those related to the fieldwork.

The first problem had to do with the issue of research assistants. The nature of the study required that experienced and capable hands were involved in the data collection. We ensured that the personality and "outlook" of those recruited to serve as interviewers is not significantly different to those of the target population. As a result, we recruited young people to serve as interviewers so as to guarantee the quality of the information they were going to collect. Our experiences in conducting adolescent related research and fieldwork proved quite useful in this regard. We had come to realise that most young people do not often wish to talk to those who are obviously older and more matured than them. The reason is that older people are usually judgmental and try to impose their own values on them. Consequently, many of them do not disclose the right information or freely express their opinions if someone they perceived as such is interviewing them. In order to circumvent this problem, we set out to recruit undergraduate students of the University who are themselves between the ages of 17-24 to serve as interviewers. The problem emerge because of some delays we experienced at the time data collection was to commence. We had planned to complete all the fieldwork before the University examinations were due to start. Unfortunately, due to the delays we had, we could not finalise the fieldwork before the examinations. Since most of the interviewers had one examination or another to write, they were not available for the second phase of the data collection exercise in the rural areas. This necessitated the recruitment and training of a fresh set of interviewers, which proved quite costly in terms of finance and time.

The other problem had to do with getting permission to conduct some of the interviews in some of the villages and some schools in the urban areas. In the rural areas, it was impossible to conduct the survey in some of the villages that were

included in the sample. This happened because in some of the villages, the village heads refused to grant us the permission to conduct the interviews. The reason given was that the government had neglected them so long that they did not want to have anything to do with the government again. For example, in one of such villages, there had been a cut in power supply for upwards of 8 months prior to the survey. In spite of all our explanations that this is purely a research work, the village heads did not yield their ground. Consequently, we had to select other nearby villages, similar in nature to the villages that were initially selected. Even then, in some of the villages, quite a number of those who were sampled refused to be interviewed for fears which we could not understand. For instance, this was the problem we confronted at Oolo, the village in Ogbomosho South Local Government.

In the urban areas, the problems we had was in connection with some of the schools we had included in the sample. In these cases, the problem had to do with getting permission from the school authorities to interview the students. The Principals in these schools were apprehensive when they requested for and saw a copy of the questionnaire that was to be used for the interviews. In one of such schools, an elitist school that was so vital for the survey, the Principal merely refused to grant the permission because according to him ...

> " *we don't feel this kind of study is for the students of this school. As you can see, they are so disciplined that they would not have the slightest idea about most of the issues you have asked them to respond to. So, I am sorry..., maybe you should try some other schools in town*".

This particular Principal even offered to assist us in getting the consent of the Principal of one of such schools. In solving this problem, we considered the importance of including respondents from the school in the sample. The school happened to be the only elitist school that falls within the sample, and it was essential that students from the school are interviewed in order for us to compare

their responses with those of adolescents from lower socio-economic classes. Consequently, we had to resort to interviewing the students after the normal school hours.

The final problem that is related to the fieldwork is in connection with interviewing respondents who had a history or currently have an infection. Although we had anticipated that most people who have such a problem may not wish to talk about it, what suprised us was that even those who obviously were in the clinic for treatment usually claim that they are not infected but that they had come for some other business. The high level of response we got particularly in the urban areas was due to the efforts of the staff of these clinics who insisted that some of the respondents should talk to us. Ironically, none of those we invited for the case study declined to be interviewed.

3.9 Limitations of the Study

A limitation to any survey which asks about sexual behaviour, particularly among young people, is the reluctance of the respondents to respond or to be totally factual in their responses. Although, there was a 100% return rate for all the questionnaires administered, not all the respondents completed the questionnaires. It was only for a few of the questions the response rate was low and this indicate that most respondents were willing to answer the questions. As a result, the findings will be representative of the population of adolescents in Oyo State. On the other hand however, respondents may be inclined to provide responses which they think are acceptable and not necessarily the ones that reflect their beliefs, opinions, attitudes and behaviours. If this been the case, then for those questions, the findings would have to be accepted with caution since it may not be truly representative. A way adopted to eliminate or at least to minimise this problem was to hire interviewers who were of the same age or about the same age with the respondents so that respondents might be more comfortable since they would be talking to people of their age group who would be seen to have had or are having similar experiences. Also the qualitative data was used to supplement whatever was derived from the quantitative data in order to compare the responses. The extent of the problem can be measured by comparing the similarity of differences in quantitative and qualitative data for similar topics.

CHAPTER FOUR

Sexual Behaviour and Sexually Transmitted Infections related Knowledge and Attitudes.

4.1 Introduction

The established fact that sexual intercourse is one of the most common, and perhaps the most efficient, way for the transmission of sexually transmitted infections, including the dreaded HIV virus, has increasingly turned attention to the sexual behaviour of individuals in the last one decade. Moreover, since it has also been established that the transmission of HIV is more accentuated in individuals with other sexually transmitted infections (Brunham and Ronald, 1991), information on the patterns of sexual behaviour of individuals has become all the more important. Without doubt, if information on specific patterns of sexual behaviour are not available, it will make the task of controlling the spread of infection in the population more difficult.

Sexual behaviour is one of the most complex forms of human behaviour. It centres around a number of factors, including physical, cultural, economic, social, political and personality factors. These factors all combine to define the types of sexual behaviour that are acceptable and permissible for members of the society. For example, the ages at which sex is considered appropriate, with what types of partners, under what circumstances are all dictated by these factors. Variations in sexual behaviour occur across and within cultures. Education, socioeconomic background, family background, age, gender, ethnic affiliation and such other demographic characteristics all influence the sexual behaviour of people and what they consider to be appropriate and normative.

What the literature on sexual behaviour suggest is that there have been marked changes in the sexual behaviour of people in the last 50 years with the trend that young people now continue to commence sexual activity at earlier ages than what obtained in the past. Decreases in the age of sexual maturation for boys and girls, prompted by improved health and nutrition, changes in the onset of menarche and spermache for girls and boys are all taking place in evolving social environments that give rise to new means of sexual expression. In addition, the patterns of family organisation such that the large extended family structure is giving way to nuclear family systems have weakened the traditional means of preparing and socially controlling young people in their reproductive and sexual life. In addition, modern communications, technological revolutions, rapid urbanisation and industrialisation, opportunities for education and occupational mobility and the profound improvements in modern contraceptive methodology have all contributed to new patterns of sexual behaviour.

In view of these changes, there is a growing realisation that understanding the sexual behaviour of individuals is crucial to understanding the problem of disease transmission. In this chapter, an attempt is made to examine and thereby understand the important implications adolescents' sexual behaviours have for the transmission of infections. The chapter begins by examining the background socioeconomic and demographic characteristics of the respondents and how these affect their perception of sexuality and influence their sexual behaviour. In addition, findings with regard to the knowledge and opinions of young people about sexually transmitted infections are also presented and discussed. The final part directed attention to the important implications the pattern of sexual behaviour, knowledge of and opinions about sexually transmitted infections may have for the transmission of infections among adolescents in Oyo State.

4.2 Background Characteristics of the Respondents

In the general survey, a total of 977 questionnaires were properly completed and found useful for analysis. Thus, the results which are presented in this section is based on the analysis of the 977 questionnaires. The sociodemographic characteristics of the respondents are presented in table 4.1 below.

Table 4.1: Distribution of respondents' sociodemographic characteristics

	Categories	Frequency (n=977)	%
Sex	Male	477	48.8
	Female	500	51.2
Age	10-14	47	4.8
	15-19	496	50.7
	20-24	376	38.4
Marial Status Marital Status	No Response	58	5.9
	Single	945	96.9
	No Response	32	3.1
Ethnic Group	Hausa	9	0.9
	Igbo	79	8.1
	Yoruba	842	86.2
	Others	47	4.8
Religion	Christian	565	57.8
	Moslem	388	39.7
	Others	24	2.4
Ever Attended School	Yes	923	94.5
	No	54	5.5
Current Schooling Status	In-School	476	48.7
	Out-of-School	501	51.3
Highest Level of Education	None/Quaranic	25	2.8
	Pry. Incomplete	30	3.1
	Pry. Complete	206	21.1
	Sec. Incomplete	406	41.6
	Sec. Complete	227	23.1
	Above Secondary	83	8.3

The demographic characteristics of the respondents, presented in table 4.1 showed that female respondents constituted a majority (51.2%) of all those who were interviewed. Respondents between the ages of 15 and 19 years constituted half of all those interviewed while those between the ages of 20 and 24 years constituted 38.4%. The mean age of all those interviewed was 19.5 years. There were no differences in the mean age of respondents in both the urban and the rural areas. Almost all the respondents (97%), except those who did not respond to the question on marital status indicated that they were single.

The study was conducted in Oyo State, a predominantly Yoruba speaking area, therefore, it was not a suprise that majority of the respondents were of Yoruba origin. The Yoruba respondents were 87% followed by the Igbos (8.1%), the Hausas (1%) while those from other ethnic groups in the country constituted about 4.2% of all those interviewed.

The religion of the respondents is a reflection of the two dominant religions in the country. In other words, more than 99% of all the respondents were either Christians or Muslims. Christian respondents accounted for over half of all those interviewed, representing 57.8% while Muslims accounted for 39.7% of all the respondents. In the urban areas, Christians also accounted for the largest group of respondents, but there was no difference in the proportion of Muslim respondents in both the urban and the rural areas. Respondents who indicated that they practice other religions and those who did not respond to the question make up only 2.4% of all those interviewed. The large proportion of Christian respondents is noted, although this could be explained in terms of a new wave of religiosity in which case it is now becoming fashionable for everyone to claim that they are "born-again".

Respondents' educational status and level of educational attainment were also examined. In this case, three related questions were asked to determine the literacy, current schooling status and level of educational attainment of the respondents. First,

the respondents were asked to indicate if they had ever attended school in order to determine their literacy level. The responses showed that majority of the respondents are literate, at least considering the fact that more than 94% responded in the affirmative. The analysis shown in table 4.1 also reveals that the current schooling status of the respondents, determined by whether a respondent was in-school or out-of-school at the time of the survey, suggested that of all those interviewed, out-of-school respondents were more than those in-school respondents. Although the proportion was somewhat similar. Thirdly, for the respondents who had ever attended school, they were asked to indicate the highest level of educational attainment they had. Highest level of educational attainment is indicated either by the highest level of schooling attained before dropping out or by the level of schooling completed for those who are currently in-school. The analysis revealed that the highest single group were those who did not or were yet to complete secondary education. The proportion of 41.6% in this category can be explained by the fact that majority of the inschool respondents were interviewed in the secondary schools in both the urban and rural areas. Respondents who had completed primary education constituted the second largest category. All the 21.1% in this category were out-of-school respondents. About 23.1% indicated that they had completed secondary education, while 8.5% were in tertiary institutions. Majority of those who had some form of education were interviewed in the urban areas and majority of those who are currently in-school were also in the urban areas.

The analysis of the respondents' location of interview or place of residence showed that more than half of all the respondents (56%) were interviewed in the urban areas while the rest were interviewed in the rural areas. They were also asked to indicate with whom they were currently living. The analysis revealed that 51% of the respondents live with both parents, while the rest of the respondents live with other people including single parents (mother or father), relatives, older siblings, with

friends or alone. Various reasons were given by those who live with other people, apart from their parents. Access to socioeconomic and educational opportunities in the urban centres, ranked highest on the list of reasons proffered for living with other people apart from parents. The death of one or both parents is the second most commonly cited reason, although this is also related to access to economic opportunities.

4.3 Information about Respondents' Parents

The study also investigated respondents socio economic status by asking a number of questions on the socioeconomic characteristics of their parents. First, respondents were asked to indicate if their parents are still alive and if they are living together. The analysis revealed that more than 88% of the respondents' parents were still alive, while 11% indicated that one or both parents were deceased. For those whose parents were alive, a majority (72%) of them still live together. TwentyEight percent of the respondents indicated that their parents were not living together and divorce is the most common reason given by those in this category.

Analysis of the parents' educational and occupational status are presented in table 4.2 and 4.3 below. Table 4.2 showed that 27% of fathers and 19.7% of mothers had some form of tertiary education while 21% of fathers and 17.7% of mothers completed secondary education. The rest of the parents did not complete their secondary school or had below secondary education. The occupational status of the parents also showed that the majority (61.3% of fathers and 77.1% of mothers) of them are self employed. Those in this category included those who operate some form of small scale businesses or are involved in some trading activities. About 30% of fathers and 16% of mothers are employees, working either in public or private sectors. Less than 1% of the respondents' parents are employers of labour. A further analysis showed that fathers, more than mothers are employees while mothers

constitute the highest group of those who are self employed. In the urban areas parents were more likely to be employees while those in the rural areas were more likely to be self employed.

Table 4.2 Distribution of parents' highest level of education attainment

Level Attained	Father	%	Mother	%
None/Koranic	44	4.7	41	4.2
Pry. Incomplete	57	6.1	79	8.4
Pry. Complete	144	15.3	180	19.2
Sec. Incomplete	48	5.1	52	5.5
Sec. Complete	200	21.3	166	17.7
Higher	255	27.1	185	19.7
Other	59	6.3	69	7.4
Don't Know	170	14.1	205	17.6
Total	977	100	977	100

Table 4.3 Distribution of parents' occupational status and income per annum

Occupation	Father	%	Mother	%
Employer	3	0.3	6	0.6
Employee	286	30.3	157	16.7
Self Employed	579	61.3	726	77.1
Other	109	8.1	88	5.6
Total	977	100	977	100
Annual Income				
Below N10,000	61	6.2	84	8.6
N10,000-N50,000	151	15.5	150	15.4
Above N50,000	54	5.5	41	5.5
Don't Know	711	72.8	702	71.8
Total	977	100	977	100

It can be concluded from the data that many of the respondents had parents who were educated given the fact that 48.4% of fathers and 37.4% of mothers had completed secondary education or had some form of higher education. Although, majority of the parents were reported to be self employed, the large number of respondents who were ignorant of the parents annual income made it difficult to conclude on the socioeconomic status of the respondents' parents. In any case the prevailing economic situation in the country is such that many individuals are involved in petty trading and other small scale industries and even many of those who are employees also engage in some forms of private practice to augment their income.

The respondents were also asked to describe the kind of upbringing they received from their parents or those with whom they grew up. The majority (55.4%) of respondents described those with whom they live as "quite permissive". Permissiveness is defined as a situation in which respondents were encouraged to speak freely about themselves or their problems by those with whom they live. Participants in focus group discussions however indicated that many young people speak only about those things which they feel their parents or guardians will not frown at (this excludes sexuality issues e.g. having a boyfriend, dating, sexual intercourse, pregnancy, etc.). They added further that for those who were brought up by parents described as "quite strict", this does not entirely mean they are not allowed to express themselves, but the situation is such that they do not always feel free to discuss issues they consider very personal or other problems they have with them. Parents or guardians who were described as "carefree" were those that do not bother to ask their wards or attempt find out what is happening to them. The assumption in this case is that an adolescent's behaviour is likely to be influenced by the kind of upbringing which he/she has. At least up till the early part of secondary school education, a young person's character is still influenced by his or her family of

orientation. In fact, studies (for example MakinwaAdebusoye, 1997) have provided evidence indicative of the fact that when adolescents lack parental support or feel neglected by parents or guardians, it makes them more susceptible to influence from the peer group. Therefore, when parents are too strict, permissive or carefree, such attitude can influence an adolescent's perception, attitude and behaviour and this could have important implications for their sexual behaviour.

Table 4.4: Respondents description of parental upbringing by place of residence

Description	Urban		Rural	
	Frequency	%	Frequency	%
Strict	152	27.8	146	33.9
Permissive	299	54.7	242	56.3
Carefree	62	11.3	24	5.6
Not Categorised	34	6.2	18	4.2
Total	547	100	430	100

When asked to indicate with whom they discuss their personal problems or ask questions on sexuality issues (e.g. bodily changes in boys and girls, sexual intercourse, menstruation, ovulation, pregnancy, contraception, sexually transmitted infections, etc.), participants in focus group discussions indicated that though they sometimes discuss with parents, friends were most preferred when the need for such discussions arose. There were variations between urban and rural adolescents in terms of who they prefer to discuss their personal problems. Those in the rural areas were more predisposed to discussing such issues with their parents or any other older person while those in the urban areas preferred friends or older siblings.

A number of explanations could be provided for the observed differences. First, in the urban areas, young people are more likely to have problems which include

sexuality problems and these are discussed with friends or older siblings who are more understanding and will offer solutions that are practical and acceptable to the adolescent subculture. Moreover, those in the urban areas usually have access to other sources of information (including the media) from where they can obtain information on what to do when confronted with such personal problems and in most cases, young people in the urban areas turn to these sources to seek for solutions to their problems. Moreover, the forces of social control are not as strong as what obtains in the rural areas. On the other hand, rural adolescents may prefer to discuss personal problems with parents or older members of the family because of the structure of the family in traditional societies. Here the extended family structure provides moral and material support to young people as well as provide several role models that prepare them for adulthood in addition to the various social control mechanisms which act as a check on their behaviour. This is contrary to what usually obtains in the urban areas where forces of social control are not as strong over young people's behaviour.

4.4 Sexual Behaviour Patterns

4.4.1 Attitudes

In the past, young people tended to move directly from childhood to adulthood responsibilities. Nowadays however, several studies (for example Tanner, 1982; WHO, 1993) have concluded that the once brief interlude between childhood and adulthood is lengthening. Although the age at which girls attain menarche may be declining, opportunities for schooling and other forms of training are perhaps the single most important reason why many young people are delaying marriage. In particular, where girls find opportunities for schooling or other forms of training, the tendency to delay marriage increases. However, in spite of the willingness to postpone marriage in order to attain some form of education, many young people are not willing to postpone initiation into sexual activities until they are married. In fact, it

has been concluded that the increasing delay in the age at marriage has led to earlier ages at which young people tended to get initiated into sexual activities. Findings from this study supports this conclusion. While many of the respondents hold favourable opinions about delaying marriage and remaining a virgin until they are married, they are unwilling to postpone sexual activity. First, when asked to indicate the ideal age at which they feel a young man or woman should be married, the responses were that for both boys and girls after 25 years is the ideal age at which to get married. A number of reasons including the need to be educated, maturity, to be well established (acquisition of property), etc. were given for suggesting this age.

Following the above, respondents were asked to indicate if they consider it necessary for a young person, especially a girl to remain a virgin until marriage. In other words, what do respondents feel about postponement of initiation into sexual activity among young people. As shown in the table 4.5 below, a majority (62%) of the respondents generally agreed that young people should remain virgins until they were married. In other words, there was a general consensus among the respondents that premarital sex is not good for young people. Responses from boys in focus group discussions revealed that many boys prefered to marry girls who were still virgins. Among young people in both the urban and rural areas, there was a similarity in their pattern of responses, since males in both urban and rural areas expressed the opinion that young people, especially girls should abstain from premarital sex.

Table 4.5: Respondents' opinions on premarital virginity by sex and place of residence

Opinion	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Positive	301	63.1	308	61.6	363	66.4	246	57.2
Negative	147	30.8	142	28.4	164	19.9	156	36.3
No Response	29	6.1	50	100	20	0.7	28	6.5
Total	477	100	500	100	547	100	430	100

A number of explanations could be provided for this pattern of response. In almost every culture in Nigeria, societal values demand young people, and particularly girls to remain chaste until they are married (Ellias, 1970; Fadipe, 1970; Orubuloye, 1981, cited in Feyisetan and Pebley, 1989; Demehin, 1983; Bolaji, 1984; Okore, 1987). This perhaps explains the reasons given by respondents for this opinion. Many young people were not unaware of this cultural expectation, thus they display a favourable attitude to premarital virginity. This clearly indicates that the traditional requirement for young people to remain virgins until marriage is widely accepted, by young people[1].

It is interesting to note that not all the respondents however had favourable opinions about premarital virginity. Almost 30% of the respondents indicated that it is not necessary for a boy or girl to remain a virgin until marriage. Among respondents who hold this opinion, anyone who has engaged in premarital sex is usually assumed to be "civilised" or "mature" or it is seen as an indication of a new status of maturity which simply means that "one has arrived". Moreover, curiosity; the need to prove that one is matured; or the need to be sufficiently experienced were

---

1 In many African societies, virginity at marriage was expected for young people, especially the females and among the Yoruba who constituted the majority of the study population. A high premium is placed on girls who remained virgin until marriage and the respondents are not unaware of this cultural requirement which may have influenced their opinions.

part of the reasons given by young people for engaging in premarital sex. Urban respondents who were more favourably disposed to premarital sex than their rural counterparts are likely to hold these views. Several studies (for example Feyisetan and Pebley, 1989; Baker and Rich, 1992) have revealed that urbanisation, influence of western culture and the peer group, crowded living arrangements, less parental control, desire for financial rewards and the mass media are all factors which influence young people's perception of premarital sex. Of particular note is the wrong impression that for anyone who remains a virgin until marriage, it would be difficult for such a person to give birth to a child since it is assumed that the vagina will not expand enough to allow the foetus easy passage.

4.4.2 Sexual Behaviour

Although, a large proportion of the respondents may have indicated positive attitudes to premarital virginity, their sexual behaviour provided evidence of a contrary disposition. Four Hundred and Twenty Seven respondents (43.7%) indicated that they had commenced sexual activity. This proportion is an indication that many young people are sexually active[2]. Moreover, not only are many of them sexually active, the reported ages at first sexual intercourse is decreasing and this is much more lower than what was reported in the Demographic and Health Survey (1990) report. In the DHS report, a mean age of 16.0 years was reported while this study found that the mean age at commencement of sexual activity was 12.0 years for boys and 13.5 years for girls.

---

2 It has been generally observed that first, because of the sensitive nature of the question and secondly because society frowns at adolescents sexual activity, many young people so asked do not readily admit that they are sexually active. Moreover, reports from other studies showed that a higher proportion of adolescents are sexually active. Thus, it is suspected that the proportion who reported sexual activity here may not be a true reflection of the situation.

As a result of peer pressure and the cultural expectations which encourages them to freely interact with members of the opposite sex, boys generally commence sexual activity earlier than girls. It is interesting to note that all those who reported to have commenced sexual activity before age 10 are boys. A majority (64.6%) commenced when they were between 16 and 20 years old. Although, boys generally start before girls, many girls initiate sex with men who are a bit older. The girls' partners were reported to be an average of 4.1 years older at the time of first sexual intercourse. The reported mean age for the girls partners was 17.6 years. Participants in both male and female focus group discussions provided reasons why girls commence sexual activity with people who are older and more mature. Firstly, since girls develop much earlier than boys, they are usually exposed to pressures from older males to become their sexual partners and the tendency is for them to succumb to such pressures. Female participants voluntered that "a girl needs someone who is more matured and experienced to disvirgin her"[3]. Consequently, early onset of puberty, and anxiety about being disvirgined, in addition to other factors may predispose girls to commence sexual activity with older men. Largely as a result of these factors, urban adolescents commence sexual activities earlier than rural ones.

The study made some interesting findings with regard to the level of coital frequency among respondents who had commenced sexual activity. The findings revealed that young people engage in sporadic and unplanned sexual activity. About 21% of all those who have initiated sexual activity reported that they have sex at "any available opportunity" or whenever the opportunity presented itself. The implication of this is that the probability of having unprotected sex among these

---

3 The assumption is that the process of being disvirgined is usually painful and many girls attempt to minimise the trauma by engaging in their first acts of sexual intercourse with an older and more expereinced person.

respondents may be high since at "any available opportunity" is a strong indicator that there was no fore knowledge or planning and thus it can be assumed that nothing will be done as a preventive measure. Further analysis revealed that out-of-school male respondents were the largest group (45%) among those who engage in irregular, unplanned and unprotected sexual activity.

The frequency of sexual intercourse among young people may be higher than what studies in the past have reported (GyepiGarbrah, 1985; DHS, 1990; Makinwa-Adebusoye, 1992; Ogbuagu and Charles 1993; Oyeneye and Kawonise, 1993). Among those who had initiated sexual activity, the last time they had sex was between one and five weeks preceding the survey and on the average, 2 weeks preceding the survey was reported. However, in the last four weeks, about 84.1% of those who had initiated sexual intercourse reportedly had sex. The table below presents responses to the question on the number of times respondents had sex in the last four weeks preceding the survey.

Table 4.6: Distribution of Respondents' sexual activity in the last four weeks before the survey

No of times	Males		Females	
	Frequency	%	Frequency	%
None	41	17.5	27	13.9
Once	105	45.1	82	42.3
Twice	20	8.6	6	3.1
Thrice and above	67	28.8	79	40.7
Total	233	100	194	100

Table 4.6 above presents findings on the sexual activity of respondebts in the last four weeks preceeding the survey. From the table, it can be observed that a higher proportion of males reported sexual activity in the last four weeks before the survey that their female counterparts (54.6% vs 45.4%). However, it is interesting to note that a higher proportion of females (40.7%) more than males (28.8%) reportedthat they had sexual intercourse 3 times and above within the

same period. This finding can therefore be interpreted to mean that females probably have sex more frequently than their male counterparts.

The frequency of sexual intercourse may have a linkage with the number of sexual partners that an individual has. The assumption is that where an individual has more than one sexual partner, the tendency is for such a person to have sex more frequently than someone who has only one. Following this assumption, respondents were asked to indicate if they ever had more than one sexual partner and more specifically the number they had in the four weeks before the survey. The data, presented in the table below, showed that among those who had initiated sex, 66% of males and 32.5% of females had more than one sexual partner. When place of residence was taken into consideration, 55.8% of urban respondents and 42.8% of their rural counterparts also responded in the affirmative. Table 4.7 below also presents respondents distribution by the number of partners they had in the last four weeks.

Table 4.7 Distribution of Respondents who ever had more than one sexual partner,number of partners in the last four weeks by sex and place of residence

Ever had more than one partner?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	154	66	63	32.5	134	55.8	80	42.8
No	80	34	131	67.5	106	44.1	98	57.2
Total	233	100	194	100	240	100	187	100
No of Partners in last four weeks								
One	34	22	15	23.8	30	22.4	19	23.8
Two	27	18	13	20.6	20	14.9	20	25
Three	16	10	2	3.2	14	10.4	4	5
Four and above	10	6.5	4	6.3	8	6	6	7.5
Can't remember	67	44	29	46.1	62	46.3	31	38.7
Total	154	100	63	100	134	100	80	100

*Number of partners in last four weeks is computed only for those who have had more than one partner

From table 4.7 it is obvious that many sexually active young people keep more than one sexual partner at a time. Of particular note is the number of those who can not remember the number of partners they had in the last four weeks (43.5% for males and 46.1% for females). Similar studies have reported that the practice of having multiple sexual partner is widespread among adolescents in many parts of the country. For example, Makinwa-Adebusoye (1991, 1997) found that 32.1% of girls and 57.7% of boys who were sexually active had two or more sexual partners. Other studies (for example, Orubuloye, 1991) have shown that this practice is not confined to urban areas alone. In addition to these, several other studies (Onwuamanam, 1982; Nicholas, et.al., 1986; Oni, 1992; Oguntimehin, 1992; Ogbuagu and Charles, 1993; Omorodion, 1993; Oyeneye and Kawonise, 1993) have documented the practice of two or more sexual partners among adolescents in Nigeria.

In focus group discussions, participants reported that most young people, especially males keep an average of two partners, one with whom there is a serious relationship and the other, one with whom there is no commitment. Female participants added further that...

> "*a serious partner*"(boy or girl friend) *is someone "who cares for you, makes plans for the future, is interested in your welfare, shares your emotions and loves you", while the one who is always demanding for money or sex, tells lies, or is not emotional, is the one with whom there is no commitment*". **(In-school Girls, Ibadan, February, 1996).**

Although male respondents are more likely to keep more than one partner, little variation exists between males and females in the number of those reporting more than one partner.

Furthermore, participants in all the groups provided a number of reasons why young people keep more than one sexual partner. These include the need for financial support, in order to have a choice of sexual partners so as to derive more sexual satisfaction and for males, in case the serious partner refuses sex, to have someone else to turn to. In male focus group discussions, participants indicated this was a "survival mechanism" because they did not want to be tied down to one lady. As the previous findings have shown, male out-of-school respondents constituted the largest group among whom this practice was quite common. Although it is not certain how widespread such practices are, if these findings reflects the general situation, then there are lots of implications for the transmission of sexually transmitted infections since the number of sexual partners an individual has is a strong factor for the acquisition of sexually transmitted infections (Padian, Shibosky and Hitchcock, 1991).

The reasons usually given by young people for engaging in sexual intercourse may be another factor that increases the frequency of sexual activity. From table 4.8 below, responses to the questions on why young people have sex are presented. "Love" was the most common reason mentioned for engaging in sexual activity. In the focus group discussions, participants confirmed this when they indicated that...

> "*many young girls are having sex because they want to show that they love their partners. Boys on the other hand, mainly engage in sex for this reason because they want their girl friends to take them seriously*". **(In-School Girls, Ibadan, February, 1996).**

They added further that most young people consider sex to be "fun" or as a past time and they want to do it in order to satisfy their desires and to prove they are old enough (maturity). This is especially true of situations where a serious relationship is existing and sometimes with the hope that it will lead to marriage. Girls who participated in focus group discussions also added that ...

"*many young boys take advantage of this situation by asking the girls to have sex with them if they truly love them. In most cases, the girls give in because they do not want to loose their boyfriends to other girls who are more willing to yeild to their sexual advances*". **(In-School Girls, Ibadan, February, 1996).**

Furthermore, some of the out-of-school girls reasoned that ...

"*it makes no sense for two people who have a relationship not to have sex anyway*"... [or as one female participant puts it]" *why enter into a relationship if not for satisfying your sexual desires?* **(Out-of-School Girls, Ibadan, February, 1996).**

Table 4.8: Distribution of reasons why young people engage in sexual intercourse by sex and place of residence

Reason	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Love	168	35.2	125	25	148	27	145	33.7
Financial Support	23	4.8	37	7.4	29	5.3	31	7.2
Maturity	20	4.2	21	4.2	31	5.7	10	2.3
Peer Pressure	22	4.6	14	2.8	30	5.5	6	1.4
Others	137	28.7	156	31.2	208	38	85	19.8
Can't Say	107	22.5	147	29.4	101	85	153	35.6
Total	477	100	500	100	547	100	430	100

Some studies (Gyepi-Garbrah, 1985; Feyisetan and Pebley, 1989; Feyisetan, 1991; MakinwaAdebusoye, 1992; Baker and Rich, 1992; PRB, 1994;) have identified peer pressure as a crucial factor in the sexual activity of adolescents. The data presented in the table above however showed that peer pressure as a reason for engaging in sexual intercourse may no longer be as important, since only a few of the respondents (4.6%) mentioned it. The reason for this may not be unconnected

with several intervention programmes that aim at modifying young people's sexual behaviour. In some of these programmes, the emphasis has been on changing young people's perception of sex by using trained young people (known as peer educators) to educate and provide counselling to other young people on the need to postpone sexual activity until when they are married.

It is still important to note however that some of the respondents mentioned peer pressure as a reason why young people engage in sex. For instance, young people who participated in focus group discussions reasoned that

> "*While it is difficult for some girls to admit that they are still virgins, it is particularly worse for a boy to tell his friends that he has never had sexual intercourse. The person may become an object of scorn or ridicule among his peers and this fear may cause him to have sex in order to be relevant and accepted by the group.*" **(In-School boys, Ibadan, February, 1996).**

A young male participant in one of the ou-of-school focus group discussion sessions underscore this point when he narrated his experience. In his own words...

> "*...I found myself in a discussion where my friends were discussing their experiences...(sexual* behaviour) *I was unable to contribute to the discussion since I have never had it* (sex)..., *they laughed at me and someone even said I was impotent* "**(Male, out-of-school, Ibadan, February, 1996).**

Contrary to findings from earlier studies (e.g. IFLE, 1996; MakinwaAdebusoye, 1997), the need for financial support as a reason for sexual activity among adolescents was mentioned by very few (4.8% among males and 7.4% among females) of the respondents, but it was often mentioned among rural (7.2%) than urban (5.3%) respondents. Two conclusions can be drawn from this finding. First, it may

mean that the various intervention programmes earlier mentioned are beginning to have an impact on their sexual behaviour. Second, it may mean that the practice was not widespread as it was often reported in the past.

It is however important to point out that the focus group discussions revealed why the need for financial support may yet be an important factor influencing young people's sexual behaviour, particularly for young girls who give sexual favours in return for monetary and financial rewards as a shortcut to the present economic situation in the country. Girls in a tertiary institution who participated in one of the focus group discussions captured the reason for this practice in their words...

> "*when everyone seems to be having all the money they need to buy the things they want, you will be curious to know where they get the money from since it is obvious that their parents can not afford to give them such luxuries. Because it is so easy to make money from these sources, you may be left with no choice but to join them if you truly want to belong*" **(In-School Girls, Ibadan, February, 1996).**

What is even more interesting is that some parents, especially mothers, seem to encourage this attitude among their female children (see for example the IFLE project)[4]. While girls in both secondary schools and tertiary institutions are major beneficiaries of this phenomenon, there is evidence that the phenomenon of "sugar mummy" is also fast catching up with young boys who are recruited by older and wealthy women to be their sexual partners. In one of the focus group discussions conducted among males in a tertiary institution, they volunteered that ...

---

4 The Integrated Family Life Education (IFLE) Project is an ongoing adolescent reporductive health intervention programme in an oil rich riverine community (Nembe) in Bayelsa State, Nigeria.

> *girls are not the only ones who give sexual favours in return for money nowadays, in fact a lot of university male students are also doing it with all these 'senior girls' in town*"[5] **(In-School Boys, Ibadan, February, 1996).**

The participants further indicated that boys who indulge in this kind of behaviour use the money they get from these women to maintain a younger girlfriend and the same is true of girls with sugar daddies.

For boys, the pattern of sexual behaviour may not be unconnected with the cultural practice that encourage their sexual exploits. For example among the Yoruba, the number of wives a man has is an indicator of his social status in the society and this has led to a wide acceptance of the practice of polygyny (although, we can not determine how widespread this practice is now in view of the AIDS scourge). An extention of this practice is found in the manner of raising children in which case girls are closely supervised in their dealings with the opposite sex while boys are encourage to freely socialise (Johnson, 1921). Thus, a boy's status among his peers may often be determined by the number of girlfriends he has or how prolific his sexual exploits are. Many boys indulge in indiscriminate sexual behaviour because they are indifferent to the risks posed by such behaviours.

It can therefore be concluded that adolescents' pattern of sexual behaviour are influenced by the subjective meanings (Weber, 1967) they attach to such behaviours. These include gaining acceptance among the peer group, fear, which stems from a lot of misconceptions, social stigma, need for material things, gross under estimation of

---

5 The 'Senior Girl' syndrome is a recent phenomenon in which case young women in their late twenties and early thirties, who are ordinarily expected to be married by cultural standards still remain single with no plans to get married, but keep a number of boyfriends/sexual partners who are mostly young undergraduates whom they give material gifts in exchange for sexual favours. Such girls are usually well educated and very rich.

the risk of exposure to infections and the cultural factors which promote such behaviours as well as peer group norms and expectations.

4.5 Knowledge and Opinions about Sexually Transmitted Infections

4.5.1 Knowledge of Sexually Transmitted Infections

Given the above findings, the sexual behaviour of the respondents may have a lot of implications for spread of sexually transmitted infections among young people. In order to establish the connection between sexual behaviour and the implications they may have for the spread of sexually transmitted infections, the study investigated the knowledge and attitude of the respondents to sexually transmitted infections. This was undertaken in order to understand adolescents' perceptions of infections, especially their knowledge of, opinions and attitudes to these infections. In addition, an attempt was made to examine the implications such patterns of sexual behaviour may likely have for spread of infections among the adolescent population.

Respondents were asked to indicate if they had ever heard about infections that can be sexually transmitted. The purpose was to determine the extent of awareness and the level of knowledge of such infections. The analysis, presented in table 4.9 below showed that respondents had a high level of awareness of STIs. About 84% of males and 86% of females indicated that they had heard of an infection that can be sexually transmitted. The high level of awareness of STIs had also been reported in other studies (ARFH, 1995;1996; CHESTRAD, 1995; SFH, 1996) that more than 85% of adolescents were aware of at least one sexually transmitted infection.

In the both the urban and rural areas, over half of all those interviewed mentioned at least one type of infection that is sexually transmitted. A further analysis however showed that those with higher levels of educational attainment and those who had commenced sexual activity were more likely than those who never had

to mention an infection. Respondents were also asked to spontaneously mention types of STIs known to them. Gonorrhoea (51%) and AIDS (42%) were mostly mentioned, although other kinds of infections were also mentioned.

Fig. 1: Knowledge of STIs by sex.

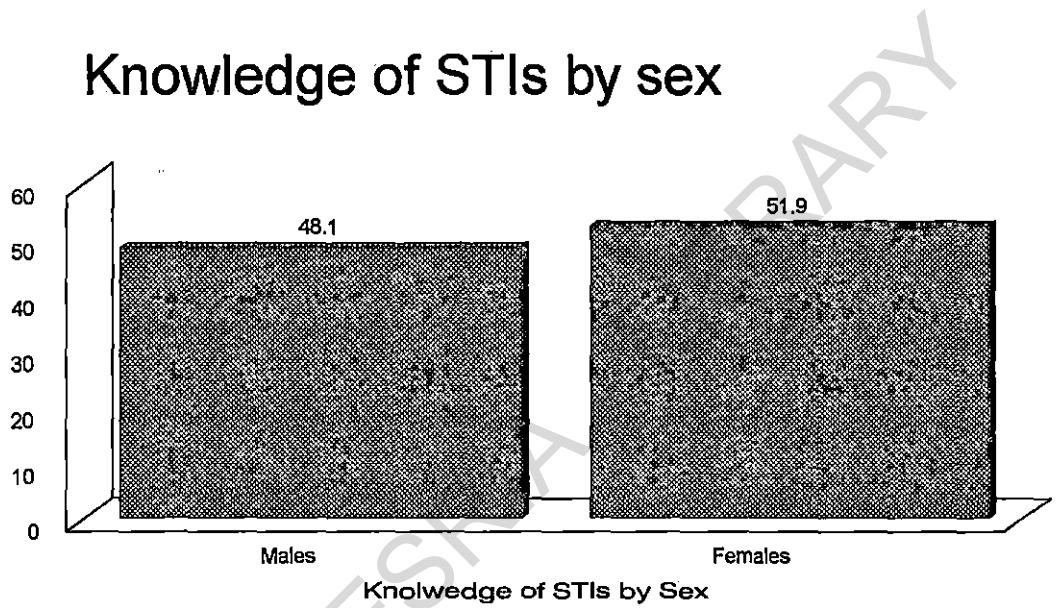


Table 4.9: Distribution of Respondents who knew at least one type of STI

Mention the one you know	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Able to mention one	399	83.6	430	56	482	88.1	347	80.7
Unable to mention one	78	16.4	70	14	65	11.9	83	19.3
Total	477	100	500	100	547	100	430	100

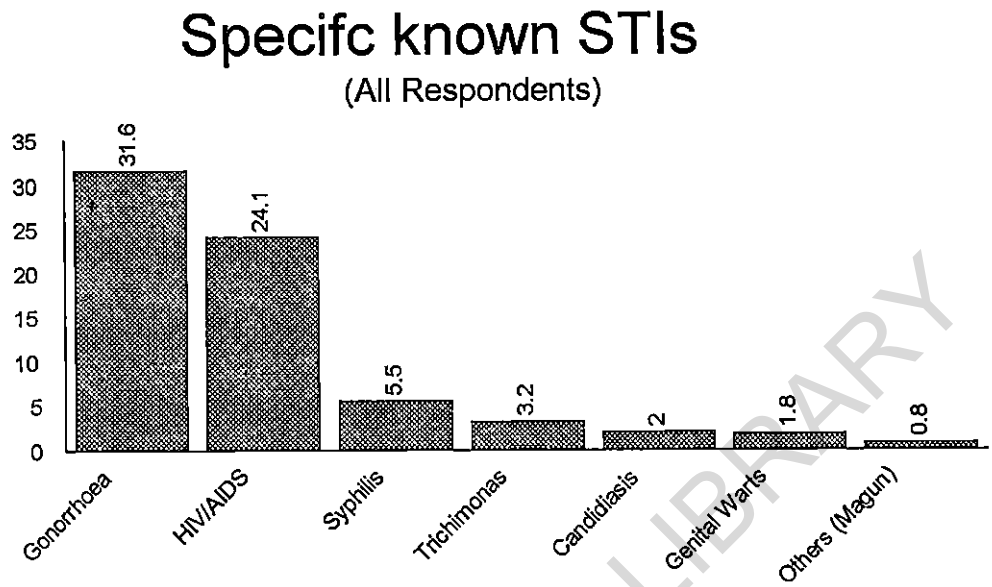


Figure 2: Knowledge of specific known STIs.

In spite of the level of awareness of infections that can be sexually transmitted, it may still be difficult for many young people to recognise such infections if they are infected and thus seek medical attention since they lack adequate information about common signs that usually accompany certain infections. The assumption is that where adequate information exists, it may be easier for a person to seek medical attention once infected. Information about common symptoms may be important for several reasons. First, it may assist an individual in recognising a state of infection, second, it may also assist the individual in identifying the probable infection, and thirdly, it may aid the provision of treatment where there is a need to rely on symptomatic manifestations especially where clinical facilities are inadequate or absent.

In spite of this, however, knowledge of the symptoms associated with such infections is still very low. For example, in response to the question "how will you

know if you have such an infection?", only 24% mentioned "painful urination" as a symptom for gonorrhoea infection. Similarly, the only symptom mentioned for AIDS was "severe loss of body weight" and this was mentioned by about 20% . A further analysis showed that those who mentioned any symptom are those with higher levels of educational attainment or those who claimed they knew someone who had an infection. It is also interesting to note that in spite of the awareness of infections that can be sexually transmitted and the intensive media campaign which has followed, there are still misconceptions about certain kinds of ailment which are regarded as STIs. These include chicken pox, "magun"[6] and yellow fever.

4.5.2 Sources of Information about STIs

The level of awareness demonstrated by the respondents can be attributed to the intensive media campaign which had created awareness about these infections, especially AIDS, because of the its mode of spread and fatal consequence. Almost half of all the respondents mentioned the mass media as a source of information about STIs. Table 4.10 presents responses to spontaneously mentioned sources of information on STIs.

---

6 The concept of 'magun' is an invisible magical spell usually adopted by jealous husbands to prevent their wives from engaging in illicit live affairs with other men or to detect an act of infidelity among the Yoruba. The spell, literally translated as 'don't climb' is placed on a woman without her knowledge. Any man who is unfortunate to have sex with such a woman has to pay the price, usually death after convulding thrice soon after the sexual act. Since the consequence usually occur after an act of intercours, it is not suprising that many young people regard it as a sexually transmitted infection.

Table 4.10: Distribution of respondents sources of information on STIs

Sources of Information	Frequency (n=977)	%
Friends /Peer Group	385	39.4
Mass Media	480	49.1
Health Personnel	263	26.9
Traditional Healer	40	4.1
Teachers/Trade Masters	232	23.7
Parents	197	20.2
Places of Worship	118	12.1
Other sources	57	5.8

From the table more than 49% of all the respondents indicated that the media as a major source of information on STIs. Apart from the media, friends (39%) also constitute an important source of information for young people. Undoubtedly, the media has played a major role in creating awareness about sexually transmitted infections, especially AIDS, the most devastating of all the STIs. However, the information provided through the media is often biased in favour of HIV and AIDS, and this may be the reason why it was the most mentioned STI known to young people. Other equally devastating STIs including Genital Warts, Chlamydia, Syphilis and Chrancroid were relatively unknown. Some of the studies earlier cited have indicated that friends constituted a ready source of information for many young people on sexuality issues. Seeking information about STIs from them is not an exception. It should be noted however that friends may not be able to provide adequate and factual information since they themselves may not have correct information about STIs. The strict social moral and religious beliefs which surrounds the issue of sexuality has rendered many parents inaccessible to discuss such issues with their wards. Other factors including the often value laden and hostile attitude of health providers to adolescents who desire such information and the restriction of information to what is approved for teaching in the school curricular may have partly contributed to the relative lack of information about other dangerous STIs, lack of

knowledge about some symptoms of STIs and lack of interest among adolescents to seek information about STIs from other sources apart from the media and friends . In addition to these, a lot of young people are not so interested in acquiring sufficient information on STIs. More than 82% reported that they had not made any effort to acquire information about STIs. It can therefore be concluded that young people lack sufficient information about STIs, especially those relating to other equally devastating STIs and how they can recognise an STI if they are infected.

4.5.3 Perception of the Consequences of Infections

Although young people do not have sufficient information about STIs, they are nevertheless aware of the potential consequences of such infections. Table 4.11 presents a summary of the responses to the question on their perception of the likely consequences of an infection. They know, for example, that if infections are left untreated for a long time, they could be very dangerous, lead to infertility or death. This knowledge of the potential consequence of infections may have derived from similar media messages that constantly reminds listeners that "death" is the ultimate end of anyone who is infected with the AIDS virus or any other STI if left untreated for a long time.

Table 4.11: Distribution of Respondents' Perception of the outcome of an infection

Outcome of Infection	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Dangerous	181	37.9	134	26.8	162	29.6	153	35.6
Infertility	14	2.9	9	1.8	18	3.3	5	1.2
Death	86	18	115	23	105	19.2	96	22.3
Others	3	0.6	8	1.6	6	1.1	5	1.2
Don't Know	193	40.6	234	46.8	256	46.8	171	39.7
Total	477	100	500	100	547	100	430	100

4.5.4 Opinions about Sexually Transmitted Infections

A final examination of the respondents knowledge of STIs was done by asking them to indicate whether they "agreed" or "disagreed" or to a number of opinion statements on STIs. The responses, presented in the table 4.12 below showed that while many adolescents know that not all kinds of STIs can be cured, especially the AIDS disease, many of them do not know that they could lead to severe health problems if left untreated for a long time. Opinions about the potency of the condom as a preventive measure is quite high (62.6%). When asked to state if only promiscuous people can get infected, opinions were equally divided about the category of people that are at risk for infections. Knowledge about the ability of STIs to cause permanent health problems, death and that people with other kinds of STIs are most likely to be infected with the AIDS virus was also high. It is noteworthy however that not up to half of the respondents indicated that STIs can be prevented and this is interesting in view of the expressed opinion that the condom is an effective barrier method.

Table 4.12: Distribution of respondents' opinions about STIs

Opinion Statement (n=977)	%Agree	%Disagree	%Uncertain
All Stis are curable	31.3	42.6	36.1
STIs could cause severe health problems	30.5	15.5	54
Condoms reduces the risk of infection	62.6	15.5	21.9
Only promiscous people can get infected	35.7	33.4	30.9
STIs causes permanent health problems	61.9	22.80	15.3
People with STIs maydevelop AIDS	52.5	22.8	24.7
STIs canoccur through one sex act	58.3	19.2	22.5
All STIs are preventable	46.1	29.5	24.4
Youth are also at risk of STIs	61.8	19.8	18.4
STIs could lead to death if not treated	81.1	4.9	14

4.6 Attitudes toward Sexually Transmitted Infections

The foregoing have shown that while there is a high level of awareness, it is still important to provide young people with sufficient and adequate information on other issues relating to STIs, for example, information about other kinds of STIs, how easily they can recognise an STI if they are infected and more importantly, the need to educate them in order to change their perceptions and opinions on STIs.

Knowledge about infections could have important implications for attitudes toward infections. The assumption is that where an individual has a very good knowledge about how infections occur, their symptomatic manifestations and what could be done to treat cases of infections, an individual's attitudes is very likely to be influenced by this knowledge. Consequently, the study investigated the attitudes of the survey respondents to these infections in view of the knowledge and opinions displayed. The findings are presented in this section.

4.6.1 Attitudes

A series of questions which sought to determine likely attitudes of the respondents to infections were asked. Among these, questions such as whether respondents had done anything to prevent infections and what respondents had done, who would they consult for treatment in the event of an infection, what are the likely reactions to an infection, whether they will inform their partners and what is likely to happen to their relationship with the person who infected them were asked.

It is perhaps interesting to note the extent to which many young people, especially those who are sexually active, underestimate their risk of exposure to infection. Among all the respondents, only 10.8% of males and 7.1% of females indicated that they had ever thought of the possibility that they could be infected.

This is understandable given that a lot of them claimed they practised abstinence or masturbation. However, even among those who were sexually active and who run a higher risk of exposure to infections, only very few (21.6% of males and 15.3% of females) had ever thought of the possibility of being infected and in the same vein taken any measure to prevent infection. A lot of sexually active young people still believed that only those who keep multiple sexual partners run the risk of exposure to infections. Among those who had ever taken any preventive measure, they were asked to mention all the measures they had ever taken. Figures 3 and 4 presents graphical illustrations of whether the respondents had ever taken any measures to prevent infections and the measures taken to prevent infections.

Fig. 3: Ever taken any measures to prevent infections?

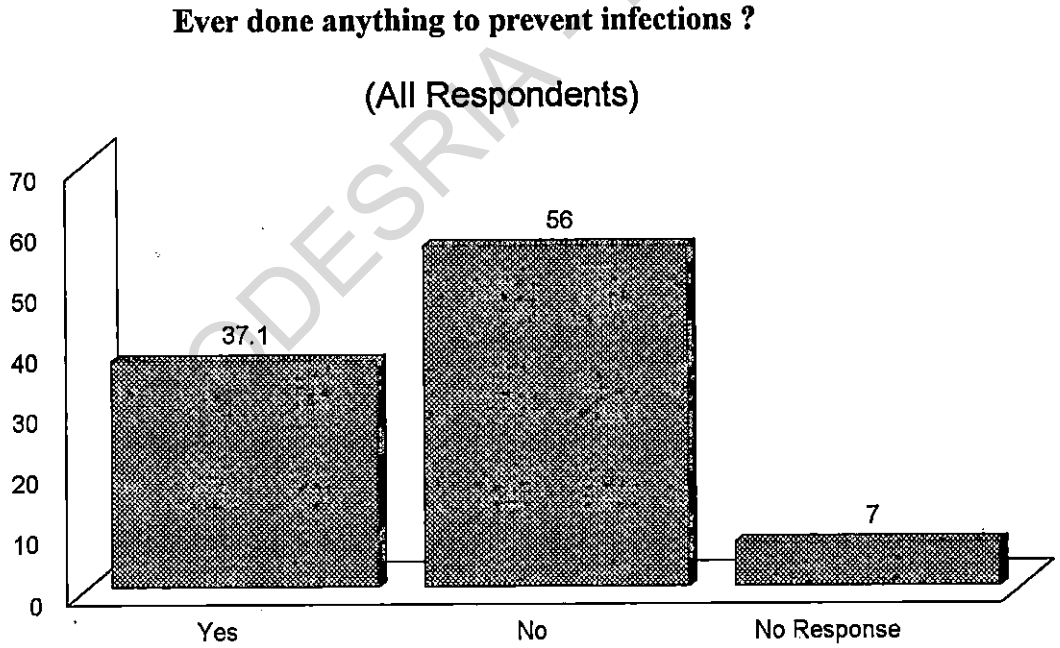
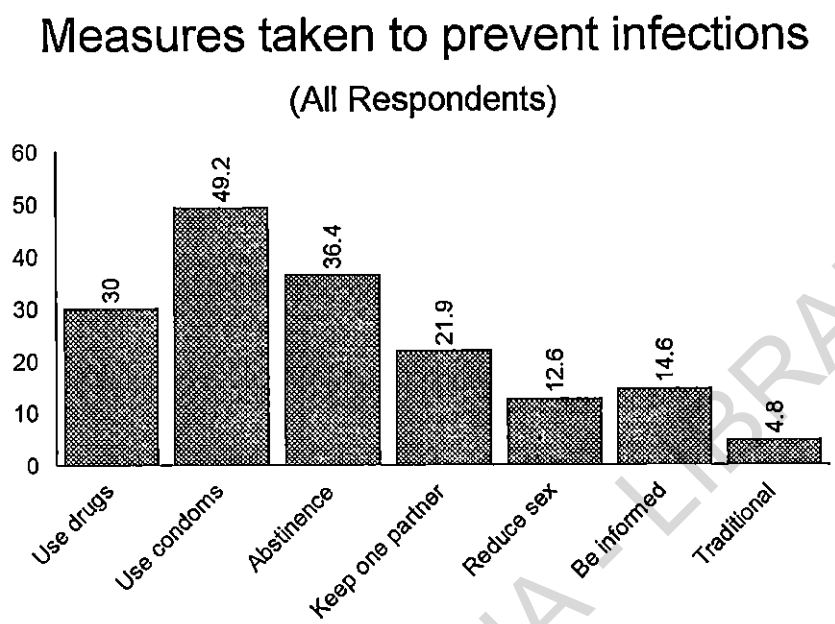


Figure 4: Specific preventive measures taken to prevent infections



Specific preventive measures that were mentioned included use of drugs (30%), use of condoms (49.2%), occasional abstinence [or rhythm] (36.4%), keeping to only one partner (21.9%), reducing the frequency of sexual intercourse (12.6%) and getting more information about STIs (14.6%). Among participants in focus group discussions in the rural areas, the use of native charms (2.8%) and herbs (2%) were also mentioned in addition to the ones above. All the respondents however unanimously agreed that keeping only one sexual partner and consistent use of the condom were the most effective preventive measures.

The conclusion that can be made from this is that while knowledge of preventive measures is high, actual practice remains poor especially among sexually active respondents. In other words, though knowledge is high, sexually active respondents are unwilling to take such measures. In view of the level of sporadic and unplanned sexual activity and their perception of the risk of infection, there are lots of implications for disease transmission.

4.6.2 Consequences and Reactions

The survey respondents were asked to spontaneously mention what would be their reactions if they suddenly discovered they had been infected. In response to the question, reactions including surprise, anger, confusion and self blame were mentioned as likely reactions to the discovery of an infection. In table 4. 13 a summary of the kinds of reaction respondents will exhibit are presented.

Table 4.13: Distribution of likely reactions to an infection (percentages)

Reaction	% Male(n=477)	%Female(n=500)	% Urban (n=547)	% Rural (n=430)
Surprise	32.70	24.20	24.10	33.30
Angry	16.80	19.80	17.20	19.80
Confused	21.40	27.40	27.80	20.20
Self blame	33.10	24.80	24.70	34.20
Other	5.00	6.00	7.30	3.30

Note: Percentages may not add up to 100% because respondents mentioned more than one reaction

From the table presented above, it is obvious that among males self blame (33.1%) and surprise (32.7%) were the two most mentioned reactions that are likely to follow the discovery of an infection, while among the females, confusion (27.4%) and self blame (24.4%) were the most mentioned reactions. Among urban respondents, the most common reaction mentioned was confusion (27.8%) while their rural counterparts (34.2%) indicated that they would blame themselves.

In order to provide more information on why respondents would exhibit such reactions, those who participated in focus group discussions provided further explanations on why an individual will react in a particular way. Quite a number of reasons were given. The fact that an individual would be surprised is an indication of gross underestimation of the risk of exposure and the fact that a sudden appearance of the infection was totally unexpected. In addition, it also meant that such persons

could not believe that the person responsible could infect them. This is because of the trust they have for the person who may infect them or as Feyisetan (1991) suggested, many young people do not expect that those with whom they have a serious relationship would have other sexual partners, least of all have an infection. Similarly, those who will get angry will do so because they also least expected that the person who infected them could have such an infection, or as reported in some of our case studies, the anger is directed at oneself for not taking enough measures to prevent the infection. For those who are likely to be confused, such a reaction can occur as a result of a combination of surprise or anger and from lack of experience or advice about what they can do under such circumstances. Although a large proportion of the respondents (54.1%) indicated that they would blame themselves if they are infected, FGD participants further added that the reaction of a victim is largely determined by his/her perception of who was responsible for the infection. In other words, a victim's reaction is informed by his/her perception of who should be blamed for the infection.

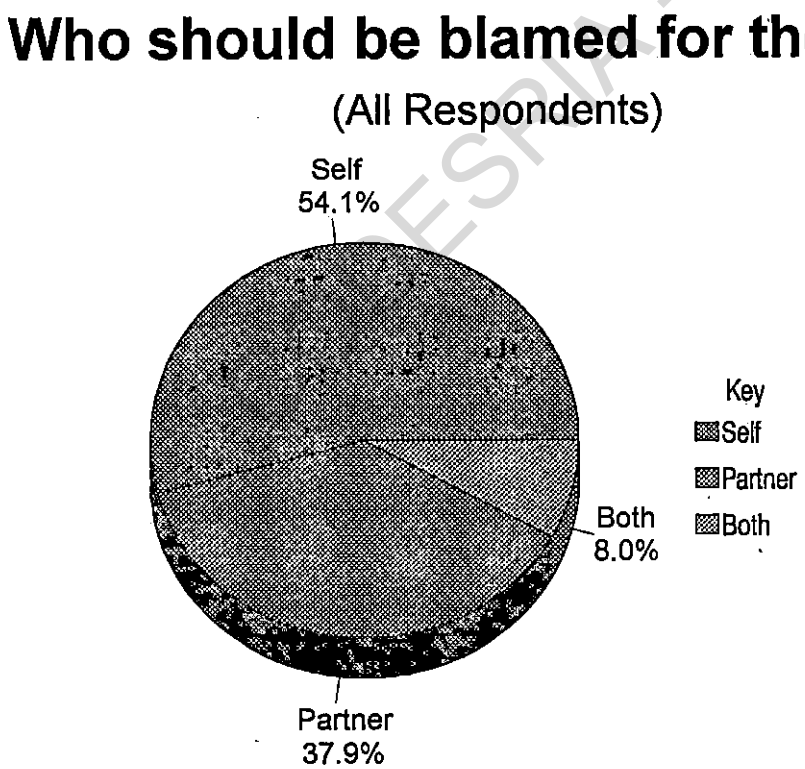


Figure 5: Who is to be blamed for the infection

4.6.3 Partner Notification and Referral

Respondents attitude to partner notification was also examined. Here, respondents were asked to indicate if they would inform their partner about an infection and whether they would also seek treatment for such a partner. The results showed that the majority of the respondents had favourable attitudes to partner notification. The results presented in table 4.14 below clearly showed that a majority of the respondents (69.8% of males and 7.6% of females) would inform their partners if they had any infection. This finding is significant and interesting because it suggests that where partners are informed about an infection, such information will assist them to seek for treatment early and this in turn is capable of further reducing the rate at which infections are spread in the population. Perhaps, it is important to point out also the proportion of those who would still not inform their partners about an infection. About 20% of males and 15% of females belong to this category. This finding calls for more concerted efforts at educating young people on the need to always inform all their most recent sexual contacts once they discover they are infected. It is interesting to point out that informing a partner about an infection is determined by a number of factors including the kind of relationship which existed between the two, whether there was an interest to continue with the relationship and most importantly whether the partner could be traced, that is, if he/she were not a casual sexual contact such as a prostitute. Although the majority of the respondents may have indicated that they would inform their partners about the infection, many of them also indicated that they would discontinue their relationship with such a partner. This can be observed from the lower part of table 4.14 where majority of the respondents across all categories (sex and place of residence) indicated that they would not hesitate to discontinue their relationship with the partner who was responsible for the infection. This kind of reaction is not surprising given that many individuals would be apprehensive that the infection may reoccur if they were to

continue with such a relationship especially with someone who was a casual sex partner or someone with whom they had no serious relationship.

Table 4.14: Distribution of respondents attitude to partner notification and what will happen to the relationship by sex and place of residence

Will you inform partner ?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	333	69.8	353	70.6	364	66.5	332	77.2
No	93	19.5	72	14.1	87	15.9	78	18.2
Don't Know	51	10.7	75	15	96	17.6	20	4.6
Total	477	100	500	100	547	100	430	100
What will happen to relationship ?								
Continue	33	6.9	50	10	36	24.9	47	10.9
Discontinue	331	69.4	259	51.8	218	39.9	272	63.3
Can't Say	15	3.1	33	6.6	23	4.2	25	5.8
Other	21	4.4	22	4.4	33	6	10	2.3
Don't Know	77	16.2	136	27.2	137	25	76	17.7
Total	477	100	500	100	547	100	430	100

Finally, the attitude of the survey respondents to sexually transmitted infections was measured by a series of statements which described several behaviours an individual will exhibit if infected with an STI. Respondents were asked to choose, in order of importance, which statements best expresses what they would do if they discovered they had been infected. From table 4.15 presented below, it is shown that the most important step an individual will take upon the discovery of an infection is to seek treatment from a qualified medical personnel. More than 71% of males and 65.8% of females will consult a qualified medical personnel once an infection occur. It is important to point out the significance of this response. It clearly illustrates that the issue of STIs is such that young people do realise that it is only a qualified medical personnel that can prescribe and cure such cases. The implication is that rather than experimenting with self medication, a lot of people will consult a qualified medical personnel for treatment. This does not mean however that some may not

attempt self medication in the hope that they can find a cure by themselves, yet the ultimate decision will still be to consult a medical personnel. A qualified medical personnel in this case was described by those who participated in FGDs as an orthodox medical practitioner. Similarly, it is interesting to note that a lot of young people are also interested in seeking treatment for partners (37% of males and 25% of females), although the proportion is still low if compared with the overall number of respondents, especially among females who may consider seeking treatment for partners as the responsibility of males. However, this may also mean that they would treat themselves.

Table 4.15: Distribution of Respondents' Likely behaviour if infected with an STI

Likely Behaviour	Male		Female	
	Frequency	%	Frequency	%
Do nothing	12	2.5	15	3
Seek friends advice	161	33.8	87	17.4
Consult medical personnel	342	71.7	329	65.8
Adopt self medication	96	20.1	50	10
Discontinue with relationship	178	37.3	125	25
Seek treatment for partner	177	37.1	125	25
Other	150	31.9	129	25.8

The fact that a higher proportion of males (33.8%) than females (17.4%) would seek advice from friends is also significant. While it can be concluded that the peer group is yet an important reference group for adolescents in such matters especially among males than females, it also meant that among males, it is easier to talk about an infection and seek advice on what can be done to cure the ailment than it is among the females. This assertion is given credence in the responses of participants in two of the focus group discussions conducted among out of school youth. Among the out-of-school males who participated in the discussion, 4 out of

the 9 participants narrated experiences of how they sought advice from their friends when they had an infection. In the words of one of them...

> "*When I had my own share of the infection, and I was finding it difficult to cope with, I remembered that* [A] *also had the infection at one time and it didn't take long before he was cured. I had no choice but to ask him for advice on what to do...*"**(Male out-of-school, Ibadan, February, 1996).**

This is a sharp contrast to the situation among females who find it difficult to confide in other people that they have an infection. In an out-of-school female FGD, participants agreed that...

> "*you don't even want people to know you are doing it* [sex] *talkless of letting them know you have it* [STI]..., *it is difficult O!... except you want them to call you "asewo"* [prostitute]**(Out-of-School females, Ibadan, February, 1996).**

Interestingly too, the table showed that self medication could be a more preferred source of treatment for some of these young people since quite a proportion (20%) indicated that they would prefer to buy drugs and treat themselves.

4.7 Summary and Conclusions

A total of 977 questionnaire were used for the analysis of the findings presented in this chapter. Males and females as well as urban and rural counterparts were equally distributed. Majority of them were in the 15-19 year age category and almost all were single. Due to the area where the study was undertaken, an over whelming majority of the respondents were Yoruba, though respondents from other major Nigerian ethnic groups were also represented. Almost all the respondents were also literate, judging by the number who indicated that they had some form of education, although current schooling status revealed that outofschool respondents were more represented than the inschool respondents. In terms of highest level of education attained, the distribution showed that majority of the respondents belonged to the category that were yet to complete secondary education or dropped out-of-school at that stage.

An attempt was made to examine the socioeconomic status of the respondents by asking a number of questions about their parents. The information gathered showed that almost all parents were alive and a majority were still living together in marriage. Respondents parents also seemed to be fairly educated as more than half of them had some form of education. Many of them are self employed, though their earning power could not be determined because many of the respondents could not state their annual income. It was estimated however that due to the prevailing economic situation in the country and the by the previous responses on their educational/occupational status majority of the respondents would come from homes that can be described as a little below the average standard. Majority of the respondents were brought up by parents who were quite permissive, though there was evidence to suggest that such parents did not entirely permit an unsupervised upbringing. As a result, majority of them would very much prefer to discuss personal issues or problems with their friends and the peer group.

Respondents sexual behaviour and general attitudes toward sex were quite revealing. The relationship between early ages of sexual maturity, lack of interest in postponing initiation into sexual activity and the fact that many young people engage in pre marital sex was also established in this study. In spite of the favourable attitudes to premarital virginity and delayed marriage, many young people, for a variety of reasons including love, assuming a new status of maturity and financial support, actually commence sexual intercourse before marriage. Among all the respondents, a total of 477 or about 43.7% had already initiated sexual activity. Several factors combined to encourage boys to commence sexual activity 1.5 years earlier than girls. Similarly, the frequency of sexual intercourse is also high with over 84% reporting that they ad sexual intercourse some four weeks preceding the survey. An increasing proportion of young people also report that within the four week before the survey, they had multiple sexual partners. Contrary to findings reported in earlier studies, peer pressure and the need for material or financial support were not major reasons why young people commence sexual activity.

An over whelming majority are aware of various types of infections that can be sexually transmitted, particularly gonorrhoea and AIDS, which constituted two of the most commonly mentioned infections, awareness of other kinds of STIs, including syphilis, chalmydia, chrancroid among others remain largely unknown. Despite this level of awareness, it may yet remain difficult for many young people to realise that they have an infection mainly because knowledge of the symptomatic manifestations of many of the STIs and even gonorrhoea, perceived as the most common infections remains largely unknown. The media and friends constituted the two most important sources of information for young people about STIs and these are followed by medical/health personnel. Even though young people may not have sufficient knowledge about various types of STIs, they are nevertheless aware of their potential

consequences. For example, many of them know that infertility or death could result from infections that are not given early treatment.

Findings from the examination of the respondents attitudes to STIs were also interesting. Though, many of them still grossly underestimated their risk of exposure to infections and very few, especially among those who had initiated sexual activity had ever taken any preventive measure against infections. For those who had taken preventive measures, these were largely limited to the use of the condoms and keeping only one sexual partner. Several consequences could result from the discovery of an infection. Among these, majority of the respondents indicated that they would be surprised, angry, confused, blame themselves, among other reactions, if they discovered that they were infected. Such reactions could either be directed at oneself for being so careless at taking a preventive measure or at the partner perceived to be responsible for the infection.

Interestingly, attitudes toward notifying a partner about an infection were quite positive and encouraging. Majority of the respondents indicated that they would inform a partner about an infection, though it is very unlikely that respondents would be interested in continuing their relationship with the partner responsible for the infection. Consulting a qualified medical personnel when an infection occur is perhaps the most important action respondents indicated they would take if they discover an infection and this was in preference to other actions such as self medication of doing nothing.

Finally, owing to the gaps that still exist in the knowledge of adolescents with regard to STI issues, it is advocated that more educational and enlightenment programmes be embarked upon to educate young people on STIs.

CHAPTER FIVE

Sexually Transmitted Infections: Treatment and Behavioural Patterns

5.1 Introduction

Until recently, sexually transmitted infections (STIs) have received very little attention as a public health problem in many developing countries. The emergence of the acquired immune deficiency syndrome (AIDS) as a major public health problem in many parts of the third world, better documentation of the economic and social impact of STIs, the identification of several STIs as risk factors for the acquisition HIV are all contributing to a global awareness of the importance of STIs (Pepin, et.al,1989; Wasserheit, 1989; Piot, et.al, 1990).

Several studies have focused on the epidemiology of STIs in the developing countries and the following conclusions can be made from their findings. First, prevalence rates for the various STIs are often high in both the cities and rural areas. The pattern of demographic transition leading to increases in the size of the adolescent population (with high rates of sexual activity) means that the population at risk for STIs will increase than at present. Second, the incidence of severe complications and sequelae in women is the result of both high infection rates and inadequate management of STIs in women. Third, in many parts of sub-Saharan Africa, infection with HIV spread through heterosexual intercourse among a population already at high risk for other STIs is a major problem as well. Finally, lack of awareness of the problem of STIs, poor quality and low accessibility of the health care system, inadequate management of STIs patients and a lack of political will for the control of diseases spread through sexual intercourse have all contributed to the persistence of the problem.

Although, sexual behaviour and behaviours associated with sexually transmitted infections have been well documented, especially among populations considered at risk, very little research exists on the patterns of adolescent behaviour with regard to treatment and health care seeking behaviour. Despite existing theoretical models for understanding health care utilisation, the absence of a comprehensive effort to investigate the factors affecting the utilisation of services for the prevention and treatment of STIs among adolescents is a glaring problem. Similarly, little is known about the psycho-social consequences of infections and the influence of societal factors as determinants of attitudes to STIs among adolescents. For example, it is not clear how young people who are infected seek care and treatment for themselves and/or their partners. The powerful social stigma and community norms and beliefs regarding infections may mean that many young people would be unwilling to disclose information relating to infection, thereby hindering health care and treatment. Furthermore, the cost of obtaining comprehensive treatment for certain types of STIs are enormous and where young people can not afford such a cost, it is important to understand what they do to procure health care. Equally important is an understanding of influence of the structural and normative environment on adolescent behaviour with regards to how they cope with the crises of infection.

The goal of this chapter is to address the foregoing. It begins with a presentation of the findings from the clinic survey conducted among adolescents who are victims of STIs and various interviews held with health care professionals responsible for treating STIs. Both quantitative and qualitative data were utilised in presenting the findings and the discussions which follow. Qualitative data were used essentially to buttress the quantitative data. In addition, results of logistic regression models constructed to predict the factors which are likely to determine and influence health care seeking behaviour and the determinants of the psycho social dispositions of the infected individuals are also presented. The chapter is presented in three

sections. Because they have been identified as important predictors of sexual and health care seeking behaviours (Aral, et.al., 1991), the respondents' background characteristics are presented in section one. In the second section, findings on the prevalence of STIs and the factors which determine health care seeking behaviour are presented. The final part focuses on the psycho-social consequences of the infection and the effect of cultural and group norms, values and beliefs as likely determinants of individual reaction to the infection.

5.2 Background Characteristics of the Clinic Survey Respondents

The demographic characteristics of individuals, including age, gender, ethnic affiliation, marital status, socio-economic status and education are known to affect risky behaviours for the acquisition of STIs. In the same vein, the way an adolescent responds both to infection and treatment may also be influenced by demographic factors including childhood experiences. Thus, one of the objectives of the study is to establish the extent to which respondents' demographic variables will determine responses to infection. Two hundred respondents (equally divided between urban and rural dwellers) were interviewed in various health facilities scattered all over Ibadan city and the two rural areas. Table 5.1 below presents a summary of the background characteristics of the respondents.

Table 5.1 : Background Characteristics of the Clinic Respondents.

N = 200		Frequency	%
Location	Urban	100	50
	Rural	100	50
Sex	Males	100	50
	Females	100	50
Age	15-19 years	90	45
	20-24 years	110	55
Marital Status	Single	115	57.5
	Partnered*	80	40
	Others	5	2.5
Ethnic Group	Hausa	15	7.5
	Igbo	20	10
	Yoruba	165	82.5
Religion	Christian	151	75.5
	Muslim	41	20.5
	Others	8	0.4
Main Activity	Student (In-School)	88	44
	Apprentice	20	10
	Worker	84	42
	Other/Nothing	8	0.4
Educational Attainment	Primary	23	11.5
	Secondary	40	20
	Tertiary	45	22.5
	Vocational	23	11.5
	None/No Response	69	34.5

*Note: Includes all those who have a serious relationship with a member of the opposite sex

Table 5.1 summarises the background characteristics of the respondents. It incorporates information on residence of the respondents, sex, age, marital status, ethnic group, religion, major activity and educational attainment. The age distribution showed that those who are in the 20-24 year age group constituted the majority of all those interviewed. Age distribution by place of interview showed little variation, although rural respondents were a little older than those in the urban

areas. The mean age reported for urban respondents was 20.2 years while rural adolescents reported a mean age of 22.0 years. Males constituted the majority of those in the higher age group. Almost all are single except for 80 respondents mostly females, representing 40% who indicated that they are partnered. In other words, these have a serious relationship with someone they are likely to marry. Due to the location of the study areas, Yoruba respondents accounted for the highest number of all those interviewed. The religious orientation of the respondents is a reflection of the two dominant religions. Christians constituted the largest category of respondents and this distribution is reflected in both the urban and the rural areas.

Students constituted the largest proportion of all those who were interviewed. They represent about 44% of all the respondents and were followed by those who were either paid employees or self employed. Those who were currently undergoing apprenticeships at the time of the survey also accounted for about 10% of the total number of respondents. In the urban areas, students and apprentices constituted the largest number of those who were interviewed while those who were self employed formed the majority of those interviewed in the rural areas. The majority of the respondents were literate and only 34.5% of the respondents did not have any formal educational training or did not respond to the question on level of educational attainment. As many as 22.5% attained the level of tertiary education.

A majority of the respondents indicated that they were living with someone (usually both parents, the mother only or some relative), but about 16% (mostly males) live on their own. About 36% of them indicated that they grew up under parents who were very strict. Only a few had parents who were carefree. The importance of this is that the kind of upbringing an individual had could influence his/her perception of issues and thus determine the kind of behaviour that is exhibited.

Table 5.2: Persons with whom respondents live

Person living with	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Both Parents	18	19	22	22	18	18	22	22
Mother only	8	8	6	6	4	4	10	10
On my own	32	32	9	9	32	32	9	9
Older sibling	3	3	1	1	3	3	1	1
Relative	4	4	12	12	6	6	10	10
In Hostel	4	4	3	3	5	5	2	2
Others	6	3	*27	27	20	20	13	13
N o Response	25	25	20	20	12	12	33	33
Total	100	100	100	100	100	100	100	100
Describe such persons.....								
Very Strict	37	37	34	34	30	30	41	41
Permissive	17	17	21	21	18	18	20	20
Carefree	10	10	5	5	10	10	5	5
Can't Say	8	8	10	10	12	12	6	6
No Response	28	28	30	30	30	30	28	28
Total	100	100	100	100	100	100	100	100

Others: These include those who are cohabiting with their partners

The kind of upbringing an individual had could determine his /her ability to discuss personal issues with those with whom he/she grew up. This is especially pertinent because studies have indicated that young people do not often discuss personal issues with their parents or other older people, preferring instead those who are their peers, especially when issues of sexuality are involved. Among all the respondents, about 47% do discuss personal issues with those with whom they grew up, but sexuality issues are not discussed. On the other hand, about 28% of them do not feel free to discuss any issue with them at all. Many of the respondents as well as participants in focus group discussions indicated that the reason was not unconnected with the strict upbringing they had. Similarly, they maintained that in order to

sustain the trust that the parents had in them, they did not discuss such issues even when they had such problems.

This finding is supported by the finding on whom they prefer to discuss personal problems, especially sexuality issues and the reason for choosing such people. Across all the categories, friends were mentioned as the most preferred, although there was a slight variation in the percentage of urban and rural respondents who indicated that they prefer their friends. Urban respondents were more likely than rural ones to prefer friends. It can thus be concluded that an individual's upbringing is very likely to influence the ability to disclose information on personal issues (including infections with STIs) and seek for advice or help from older people when such problems arise.

Access to income could be a major determinant of an individual's attitude toward STIs and his health seeking behaviour. The assumption is that where an individual has access to income, his health seeking behaviour will significantly differ from those who do not have access to income or who are still dependants. About 30% of the respondents, mostly paid employees, living in the urban areas reported that they had access to independent sources of income. Thus it can be assumed at this stage that since most of the respondents did not have independent sources of income, their health seeking behaviour is likely to be inadequate given that cost considerations will largely define the kind of treatment that is applied when infections occur.

Table 5.3: Distribution of Income

Income per month	Frequency	%
Below N2,000	10	16.4
Between N2,000 and N5,000	29	47.5
Above N5,000	15	24.6
Others	7	11.5
Total	61	100

5.3 Prevalence of Sexually Transmitted Infections

The prevalence of STIs in a population is determined by several factors including the sexual and health care seeking behaviours of individuals and the effectiveness of existing diagnostic, therapeutic and preventive technologies. It is well established that behaviours such as multiple sexual partnerships, patterns of partner selection, non use of barrier contraceptive methods as well as the sociocultural contexts in which individuals live all determine the prevalence of infections in a population. Similarly, behaviours manifested by health care providers such as use of effective regimens to diagnose and treat infections, treatment of partners and counselling, all have important bearing on the prevalence of disease.

Data on the prevalence of STIs in many developing countries are very scanty for several reasons. The social stigma attached to persons infected with STIs, the severity of the infections and the fact that there is no government legislation giving a specific directive for other STIs apart from AIDS are factors responsible for the dearth of data. Moreover, most people who are infected with STIs do not readily disclose such information to other people except when the need for treatment arises and even then most cases are treated in places other than government hospitals. Similarly, because the management of STIs is mainly left to private physicians, pharmacists and herbalists, who are preferred to government owned hospitals for reasons of privacy, it is very difficult to gather data on the prevalence of STIs and those available are not too reliable. There are however specialised clinics focusing only on the treatment of STIs and data from these sources provide some useful information (Adekunle and Ladipo, 1992).

As a result of this, one of the objectives of the study is to assess the extent of the prevalence of STIs among young people in the study areas in view of research reports which indicate that STIs were becoming a major issue of concern to many young people, and especially because they account for the highest number of people infected with some STIs (WHO, 1993; Dare and Clelland, 1993; Women

Development Group, 1995; Society for Family Health, 1996) Similarly, adolescents have been identified as a high risk group for STIs given their patterns of sexual behaviour which are very irregular and unprotected.

The information used for this assessment were derived mainly from three sources. The first is the information derived from respondents who reported themselves to have ever been infected with an STI in the general survey. Secondly, information retrieved from hospital based records available at the University College Hospital Special Treatment Clinic, the sexually transmitted diseases clinic at Adeoyo State Hospital at Yemetu and only one of the six traditional STI clinics visited were also used. The third source of information is the estimate of the percentage of adolescents among all those who reported at various health facilities for the treatment of various sexually transmitted infections during the period that the field work lasted.

Although, these were the only sources available to the researcher at the time of the survey, it must be mentioned that they are not without some shortcomings. First, several cases of STIs are not reported because of the stigma attached to it. Moreover, in many rural areas, especially among the traditional healers, many of the cases which occur and are brought for treatment are not documented. Therefore these sources may not accurately present a true picture of the extent of the prevalence of STIs, especially among adolescents. Furthermore, the information provided by survey respondents who have a history of infection may not be very accurate especially in view of the lack of knowledge of the symptoms associated with these infections. Although, it is noteworthy to mention that 3 of the respondents for the case studies were located through this source. It is also interesting to note that of the 7 young people who were identified through this source, only one of them denied ever to have been infected.

The use of hospital records as sources of information to determine the prevalence of STIs also has its own limitations. This, in part, is due to the fact that

hospital records may not provide adequate information about the statistics of the patients and the nature of infections. In addition, there are several administrative and political factors which may influence the records kept in hospitals. As such, accurate estimates can not be made from such records. The records used for this study included those of adolescents who reported during a six month period (between October, 1995 to March 1996) for treatment of various STIs as a percentage of all those who reported within the same period to be treated for an infection.

The records of those who reported at these health facilities during the field work was another source of information. In this case, an attempt was made to estimate the proportion of adolescents when compared with the total number of all those who reported at the health facilities for the treatment of infections. The problem with this method however is that only few of the actual cases that occur are brought to the hospital, and as information from some of the case studies have shown, only when the infection had defied other attempts at treatment. Moreover, many of the cases that report for treatment are not documented, especially in the rural areas.

In spite of these shortcomings, a reasonable prediction of the magnitude of the problem among adolescents can be made. There was evidence that STIs were a common problem among adolescents. In the general survey, about 15% of all the respondents reported that they had ever contracted an STI. A similar finding was reported by Makinwa-Adebusoye, (1991, 1997), Dare and Clelland (1995) and Women Development Group, University of Port-Harcourt (1995). From these studies and several others, it is apparent that STIs (especially AIDS) has become a major cause of concern among young people particularly those who are sexually active. Infection with gonorrhoea was widely reported as many of those who reported an infection mentioned the symptom of gonorrhoea. These reports were confirmed when respondents were asked to mention at least one symptom associated with the

reported infection. More than 90% were able to mention at least one symptom of the infection reported.

In all the health facilities where interviews were conducted, a total of 548 patients reported for treatment of infections over a six month period (October, 1995 to March 1996). Among these, 298 patients representing 54.4%, were adolescents between the ages of 15 and 24. The age distribution is similar to those reported in other studies with older adolescents in the 20-24 year group reporting the highest rates and females also accounted for the highest number of patients in this category. Two of these cases were confirmed by hospital staff to be HIV positive. Commonly reported infections included Vaginitis, Urenthritis, Candidiasis, Genital warts, Gonorrhoea, Shistosomiasis and Chrancroid. While males were mostly diagnosed for genital ulcers and gonorrhoea, females are usually diagnosed for vaginitis and candiasis. Table 5.4 is a summary of the data collected in the health facilities of the age distribution of patients reporting for the treatment of various STIs.

Table 5.4: Data collected in health facilities on the reported/treated cases of STIs

Age of those reporting infections	Males	Females	Total
Less than 10 years	2 (1.0%)	1 (0.3%)	3 (0.5%)
10-14 years	-	26 (7.8%)	26 (4.7%)
15-19 years	34 (15.7%)	72(21.7%)	106 (19.3%)
20-24 years	86 (39.8%)	120 (36.1%)	206 (37.6%)
25-29 years	70 (32.4%)	96 (28.9%)	166 (30.4%)
30 and Above	24 (11.1%)	17 (28.9%)	41 (7.5%)
Total	216 (100%)	332 (100%)	548 (100%)

From the table 5.4, it is shown that young people between the ages of 15-24 accounted for the highest number of reported/treated cases of infections in all the health facilities where the clinic surveys were conducted. It is important to note that 3 cases were reported by those who were less than 10 years old and only 41 cases were reported by those who were above 30 years old.

Respondents who were interviewed in the clinics provided information on the kinds of symptoms they noticed before they were diagnosed, how long it took before they reported to the clinic for diagnosis and whether that was the first time they noticed such symptoms or a reoccurrence.

Table 5.5 Symptoms of STIs noticed and whether it was a first time occurrence

*Mentioned Symptom	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Bumps /Rashes	16	16	18	18	14	14	20	20
Offensive odour/Puss	18	18	30	30	30	30	18	18
Cuts, Wounds/ Bruises	14	14	6	6	12	12	8	8
Burning sensation/ Itching	53	53	55	55	72	72	36	36
Other*	18	18	12	12	30	30	-	-
First Time or Reoccurrence								
Yes	59	59	71	71	82	82	48	48
No	12	12	10	10	10	10	12	12
Can't Say/ Remember	11	11	6	6	8	8	9	9
No Response	18	18	13	13	-	-	31	31
Total	100	100	100	100	100	100	100	100

* Other includes white virginal discharge Note: Totals may not add up to 100 since more than one symptom was mentioned

The symptoms commonly mentioned were burning sensation and itching (54%), offensive odour (24%), bumps and rashes (17%) and ulcers (20%). For the majority of the respondents (65%), they indicated that was the first time they noticed the symptom, but quite a proportion (35%) also indicated that it was not the first time. This may suggest that those in this category were probably suffering from a re-infection which may have resulted from improper treatment the first time an STI was contracted.

From the foregoing, it can be concluded that gonorrhoea, syphilis and genital warts appeared to be the most prevalent STIs among adolescents. Similarly, from the hospital records available, gonorrhoea also accounted for the highest number of cases

reported or treated. This finding is consistent with those of Daramola and Oyediran (1971), Bello et. al. (1972), Osoba (1972) Sogbetun, et.al. (1977) and more recent ones, Women Development Group (1995), Dare and Clelland (1995) and ARFH (1996). The fact that gonorrhoea is the most common of all the infections is well recognised. An interesting thing to note is the number of those who were reported to be HIV positive by the hospital staff. Although, the current level of HIV infection has not assumed epidemic proportions in Nigeria, it nevertheless points to the fact that the rates of HIV infection may be rising among the adolescent population.

In conclusion, the evidence available suggest that the prevalence of STIs among adolescents may be higher than what studies in the past have reported. The finding from the general survey suggests that about 15% of adolescents may be suffering from one infection or another. This proportion represents those who reported that they had ever been infected.

In addition to this, the proportion of adolescents who reported in the health facilities for the treatment of infection had also markedly increased than what similar studies have reported (see for example Daramola, et. al. 1972). The hospital records showed that adolescents between the ages of 15 and 24 years constituted the majority (about 54%) of all the cases of STIs treated in hospitals over a six month period from October 1995 to March 1996.

Furthermore, between the months of March to June, 1996 a total of 462 cases of STI infections were reported at the various health facilities where the clinic survey was conducted. Two Hundred and thirty-three of these, representing 48.3% were adolescents. It was out of this number that a total of 200 respondents were interviewed. Similarly, the pattern of distribution of STIs for both the urban and rural populations showed little variation, thus confirming reports by Arya (1973) and Feyisetan (1991) that STIs were no longer problems peculiar to the urban areas.

5.4 Sources of Infection

The study also investigated the likely sources from which respondents contracted the infections. The evidence available from the data suggests that many young people may not be able to trace the sources of infection. From table 5.6 presented below, 45% of males and 57% of females could not remember sources from which they contracted the infection. Two explanations can be provided in this instance. First, it is possible that such respondents may have been infected for a long time and had remained asymptomatic and for this reason it may be difficult to remember the source of infection. The second and most probable reason, is that they were likely to have several sexual partners such that it was difficult to determine from whom they had contracted the infection. If these assumptions are correct, it implies therefore that quite a lot of people may have continued sexual relations after they had been infected since there is usually a latency period before the symptoms of infection manifests. Furthermore, the fact that they could not remember from whom they contracted the infection has very serious implications, first for the rate at which infection is spread, second, for partner notification and thirdly for the treatment of partners of those who were infected.

Those who remembered the source of infection often mentioned their boy/girl friends (someone with whom they had a serious relationship) as persons from whom they contracted the infection. Other sources mentioned included casual partners, last sexual partners, prostitutes and sugar daddies/mummies. This implies that many of the respondents contracted the infections from people with whom they had a relationship and whom they probably had known for quite sometime. From this finding, it appears that many of the respondents may have grossly under estimated the risk of infection by having unprotected sexual intercourse that eventually led to the infection even when such sexual contacts (e.g. prostitiutes and casual sex partners) have been defined to be high risk groups. For those who contracted the infections from someone with whom they had a serious relationship, the probability

exists that such people also have other sexual partners (especially sugar daddies and mummies and most adolescent males) from whom they could have contracted the infection or who could also have been infected. It is quite possible then that infections may actually be spreading among a small group of people who are likely to have an intense sexual network pattern, given that many of them may have more than one sexual partner.

Table 5.6 Sources from which respondents contracted infections

Source of infection	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Boy/Girl Friend	18	18	20	20	14	14	24	24
Casual Partner	17	17	7	7	14	14	10	10
Last Partner	11	11	14	14	13	13	12	12
Sugar Daddy/Mummy	3	3	2	2	1	1	4	4
Prostitute	6	6	-		5	5	1	5
Can't Remember	45	45	57	57	53	53	49	49
Total	100	100	100	100	100	100	100	100

5.5 Treatment of Infections, Health Care Utilisation and Determinants of Health Seeking Behaviours

The assessment of factors that influence the utilisation of health care services for the prevention and treatment of STIs is an important aspect in the control of STIs. To reduce the risk of infection, studies have indicated that education and behaviour change are necessary for those who are not infected. Among those who are infected, diagnosis and treatment directly influence the duration of infection and therefore the transmission and sequelae of STIs (Padian et.al., 1990). Discrepancies between estimates of prevalence of STIs and the rates of use of treatment facilities reflects the fact that many infected individuals never reach treatment, reach treatment at a later stage of infection or self-medicate. Equally important is the issue of access to services and this is determined by a host of provider attitudes, including the characteristics and activities of health care professionals. In this section, an attempt is made to examine the factors (both for the client and provider) that impede or facilitate entry into the treatment of STIs and to highlight the implications these may have for the spread of infection among adolescents.

The classification scheme, by Amaro and Gornemann (1991), that describes the factors affecting the utilisation of services for the prevention and treatment of STIs provides an excellent starting point in the discussion of factors which facilitate or hinder the utilisation of health care services by young people. This classification scheme identifies factors expected to affect client utilisation of health care services for the prevention and treatment of STIs. Also considered are factors that influence health care providers, which in turn shape the quality and quantity of services offered and which can facilitate or inhibit client utilisation of services.

To seek help for treatment of infection, a person must first perceive the existence of an infection and be willing to address the problem through contact with the treatment system. Characteristics such as knowledge and beliefs regarding health, STIs, symptom recognition, availability of services, and the efficacy of treatment can

influence an individual's judgement of whether a health problem exists and whether treatment will be helpful. Other factors such as the individual's previous experiences with the health care system, balance of personal priorities, partner referral, perceived efficacy of prevention and treatment efforts and mental health status also influence seeking of medical care.

In addition the individual must have personal resources necessary to secure the services and overcome potential barriers to treatment (e.g., economic resources). These characteristics can affect an individual's willingness to remain in treatment and adhere to prescribed prevention regimens if the medical condition warrants sustained treatment. Social enabling factors (e.g., social support, peer group influence, social norms), the characteristics of treatment services and the characteristics of the providers (e.g., knowledge, communication style and treatment ability) also can affect the client's willingness and success in accessing and effectively utilising the services.

One focus of the study is to examine the attitude of victims of STIs to health care utilisation, treatment, health seeking behaviour, perception of the efficacy of treatment methods and coping strategies when they are confronted with an infection. The findings showed that factors such as knowledge of how infections are transmitted, ability to recognise symptoms, knowledge of available treatment services, perceived severity of infection, perceived efficacy of treatment methods, perceived possible cost of obtaining or not obtaining health care in relation to financial considerations, social stigma and relationship with partner largely determine how an individual is likely to respond to the treatment of infection once it occurs. In addition, self esteem, feelings of depression and anxiety, social or group norms, nature, roles and influence of informal networks or peer group either in facilitating or inhibiting health care utilisation, availability of social support and a host of provider characteristics and the characteristics of the physical environment of where health care services are available all combine to determine how a young person infected with an STI is likely to respond to seeking health care.

Generally, these factors combine to produce a pattern of behaviour in seeking health care and treatment among young people who are infected. Although, majority of all those infected eventually seek qualified medical attention at some point during the period of infection, nevertheless, the study found that there is a general pattern of health seeking behaviour among many of the victims. The identified pattern is such that seeking treatment at any level is dependent on the perception of or the actual efficacy of a previous, usually less competent, level to cure an infection. Participants in focus group discussions identified four stages in the treatment of infections. In the first stage, self diagnosis is followed by self medication in which drugs perceived by the victim as effective in curing the symptoms are used. The efficacy of treatment at this stage depends on the individual's knowledge of the symptoms, the nature of the infection whether bacterial or viral, and a previous knowledge of someone for whom such a treatment method had been effective. In many cases, this method may be relatively effective in clearing the symptoms, but generally, the infection is not completely cured and may result in severe complications later on, especially when it is a viral infection.

Treatment at a second stage depends on the outcome of the first one. Where the symptoms persist or manifest later in severe complications, the victim may confide in other people and seek their assistance. Usually, local drug dealers, pharmacists or quacks may be consulted for prescriptions and cost is a major factor considered at this stage. The efficacy of treatment is determined by the application of the right kinds of drugs in the correct doses. If this is not done, the infection may persist, especially viral infections, thus necessitating the need to consult a more qualified person for treatment. A higher level of treatment is consulted if the infection has defied the previous treatments and has resulted in some complications. In this case, the victims usually consult highly qualified personnel, such as medical doctors, having realised the inadequacy of the previous treatment methods. Treatment at this stage is very comprehensive and may require some minor surgical operation. More

than 80% of those who attended the clinics indicated that they had gone through one or more of the stages described above. Only in very few cases do respondents with high educational attainment and socio-economic status seek treatment directly at these clinics once the symptoms manifest. Table 5.7 presents summary responses on what respondents did to procure treatment and the reasons for choosing such options.

Table 5.7: Treatment Methods and Reason for Choosing such a Method

What did you do to get cured	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Self Treat	18	18	22	22	16	16	24	24
Hospital	72	72	66	66	76	76	62	62
Herbalist	2	2	2	2	1	1	3	3
Chemist	6	6	2	2	6	6	2	2
No Response	2	2	8	8	1	1	9	9
Total	100	100	100	100	100	100	100	100
Why choose option								
Cost	13	13	24	24	13	13	24	24
Effective	53	53	49	49	60	60	42	42
Avoid Stigma	8	8	14	14	9	9	13	13
Other	19	19	13	13	12	12	20	20
No Response	7	7	-		6	6	1	1
Total	100	100	100	100	100	100	100	100

Although the treatment of STIs could be a complex and elaborate process, respondents' health seeking behaviour and the importance attached to getting treatment is determined by the perception of the likely consequences of the infection. In other words, if the victim is knowledgeable about the potential consequences of the infection and realises that the situation is critical for his/her health, urgent steps are taken to seek for treatment once the symptoms begin to manifest. If on the other hand, the victim is ignorant of the likely consequences of the infection, then seeking for health care is likely to be delayed and if initiated, it is likely to be haphazard, ineffective and incomplete and this may result in severe consequences and sequelae

later on. Several studies have established that there is a relationship between knowledge of STIs and increased health care seeking behaviour such as improved compliance with taking medications (Green, 1979; Solomon and Dejong, 1989; Moran, et.al., 1990).

Findings from the data showed that because of the low level of knowledge of symptoms, there was usually a time lag between the manifestation of symptoms and seeking health care. It took between one and three months (reported by the majority) before those who had noticed a symptom sought health care. This long interval partly suggests that young people do not immediately seek for care and treatment once they noticed any symptom. Although the majority of the respondents reported that they were diagnosed by qualified medical personnel, herbalists[1], also constituted important sources of diagnosis for some rural dwellers. An interesting finding from this study is that treatment seeking behaviour is influenced by the source from which the infection was diagnosed. For instance, differences will exist in treatment seeking behaviour if the infection was self diagnosed or if it was diagnosed by a qualified medical personnel. For example, an individual who self-diagnosed his infection may resort to applying ineffective and incomplete doses of antibiotics prescribed by his peer group while someone whose infection was diagnosed by a qualified medical personnel begins treatment with a thorough medical examination. This study found that a lot of young people still rely on self diagnosis and other unqualified sources such as friends and local drug dealers to diagnose infections. Thus, if it is assumed that the source of diagnosis is also the most likely source of treatment, then this practice has many implications. Because such sources not only lack the equipment to diagnose infections, but are also unable to provide adequate treatment, those who rely on them for treatment may receive inadequate medications which only masks

[1] Many of the respondents interviewed in the rural areas usually claimed that traditional healers have effective herbs that can be administered to cure these infections. Moreover, the long years of experience (associated with treating such infections) may have given some of them the ability to recognise symptoms, diagnose infections and administer the right kinds of herbs capable of curing the infections.

rather than cure infections and this may worsen the situation. Although it is important to point out that peer group influence, group norms, accessibility to health care, cost of treatment and the timing of symptomatic manifestations also influence health seeking behaviour.

The above situation is exemplified by the experiences of Kola and Mudashiru[2], two of the respondents that were interviewed for the case studies. Both of them contracted an infection having had sexual intercourse with prostitutes. For reasons related to inexperience, lack of knowledge, fear and shame, they could not seek help from their friends or older people around. Somehow, they managed to find their way to local drug dealers who diagnosed gonorrhoea and prescribed certain drugs which were not effective. Three months after taking the prescriptions, the infections reappeared with severe complications for one of them. The complications which developed forced them to seek for treatment at the hospital.

Furthermore, responses from interviews with health care providers also provided more reasons why young people may prefer unqualified sources to diagnose and treat infections. The majority of those interviewed indicated that the value-laden attitude of some health providers, high fees charged in government hospitals and private health facilities for both diagnosis and treatment, compel many young people turn to other less expensive alternatives (which are mostly quacks) for diagnosis and treatment.

[2] In order to ensure anonymity, which we guarantee our respondents, their real names were not used during the interviews. The names used here are those that we assigned to them during interviews to assure them of anonymity.

Table 5.8 Respondents diagnosis of an infection

*Ever been diagnosed ?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	73	73	47	47	43	43	77	77
No	17	17	32	32	40	40	9	9
Can't remember	10	10	21	21	17	17	14	14
Total	100	100	100	100	100	100	100	100
Who diagnosed the infection								
Self/Friends	16	16	18	18	20	20	14	14
Medical Personnel	42	42	33	33	46	46	29	29
Herbalist	24	24	23	23	2	2	45	45
Other	3	3	3	3	4	4	2	2
No Response	15	15	23	23	28	28	10	10
Total	100	100	100	100	100	100	100	100

* Includes those who were interviewed before seeing the doctor at the clinics

It is important to mention that the majority of those who reported at the clinics for treatment were those who initially ignored the symptoms when they appeared or those who had administered incomplete and ineffective medications when symptoms manifested. For example, participants in focus group discussions indicated that it was quite common for those who were infected with gonorrhoea to administer 4 capsules of antibiotics before trying any other kind of treatment. Studies by Alausa (1974) and Sogbetun (1977) have reported that similar practices exist among many victims of infections. The experiences of three of those that were interviewed as case studies give credence to this finding. Although one of them, Audu, is well over the age limit of 24 years, his case was included in order to demonstrate how severe complications can result from inadequate treatment methods, especially for viral infections.

CASE 1:

Femi, a 17 year old male got involved with a commercial sex worker from whom he contracted an infection that was diagnosed as urinary tract infection, six months after he was infected. Before he came to the clinic for treatment, he had tried self medication, based on the advice of his friends and a local drug dealer who prescribed 3 capsules of antibiotics per day for 3 weeks. Soon after and without any signs of improvement, he was referred to a private hospital where he received treatment for another month without any sign of improvement. When he developed complications, he was referred to the Special Treatment Clinic at UCH where he is currently receiving treatment.

CASE 2:

For Taiba, a 19 year old female trader at Oja-Oba, her situation became unbearable after about one year since she was first told that she has the infection. In her own words...

> *"about 1 year ago, my boyfriend who was a driver told me that he had "arun ghajumo" (gonorrhoea). I did not believe him when he said he caught it from me because I knew he had other girlfriends. Sometime later, another of my boyfriends also made a similar complaint and I never took him serious because I had never had that kind of disease before. Anyway, about 4 months ago, I began to notice some unusual discharge, with a strong odour from my vagina. At first I thought it was a new dimension to my menses since it usually comes after my menses. When it persisted for more than 2 months, I told my closest friend and she advised that I see a chemist. The chemist prescribed drugs which I took for another month without any improvement. By this time I began to feel it may be a more serious thing, so I consulted an herbalist who*

prepared a concotion I took for some time, but then the situation had become unbearable. One day while at work, I collapsed and was rushed here (UCH) *where the doctors subsequently diagnosed that I had this infection* (Chlamydia)".

CASE 3:

Audu is an Hausa man. His case is a more pathetic illustration of how inadequate care and treatment can lead to severe complications later on. After several years of looking for a solution to what he described as a "persistent disease", he was finally referred to the STC clinic at UCH where we interviewed him. Audu claimed to have been infected for more than 8 years. He narrated how he had consulted several places, including traditional and modern doctors and had taken a lot of prescriptions without any cure. The symptoms first manifested in form of rashes and sores which he usually "scraped off" with blades or any other object, after which he then applies a concotion prepared for him by an herbalist. After a long time (he can not remember exactly when) and the situation did not improve, he started using drugs prescribed for him by a chemist. This continued for several years until he realised he couldn't have an erection again. At his point he knew it was something more serious and a private doctor whom he consulted referred him to the STI clinic.

Socio-economic factors may present barriers to utilisation of health care services for many individuals in need of such services. The cost of procuring health care has been identified as a major determinant of the kind of treatment that is sought by victims of infections, although cost may no longer be relevant when the infection has reached a critical stage and require treatment at the clinic. The cost of procuring treatment for these infections ranges from about ₦30, which is the cost of buying a few antibiotic capsules to about ₦2,500 for a fairly comprehensive treatment. Some of the respondents indicated that the cost of health care largely informed their choice of a treatment method because they couldn't afford the more

expensive kind of treatment. Out-of-school male participants in a focus group discussion also identified cost as an important consideration in the kind of treatment method chosen. They indicated that ...

> " *because of the high cost you have to pay at the clinic or hospital, you can get some money to buy a few antibiotics that you can take to cure the infection. Even if you can't buy drugs from chemist, you can just buy blades to scrape off the rashes and then apply lime or some other chemical to the bleeding sores. But mind you, it is very painful O !*" **(Out-of-School males, Ibadan, February, 1996).**

Sexually active out-of-school male adolescents who are most at risk of STIs are also those with the least contact with the health care system for this reason. A young out-of-school male adolescent is confronted with a multitude of competing and often immediate life concerns and when these combine with the cost of procuring health care, it may result in under utilisation of services for the treatment of infections. It is important to recognise that even when financial barriers are removed, other factors, for example, the desire to maintain secrecy, in order to avoid the social stigma attached to infection, compel some to adopt a particular kind of treatment method.

5.6 Coping Strategies

While these factors combine to determine health seeking behaviour and accessibility to services, the mental state of the victim, to a large extent, also determines the coping strategies adopted during the period of infection. Findings from the analysis showed that coping strategies are largely determined by the respondents' perception of the magnitude of the problem, feelings of powerlessness, depression and anxiety. For example, when a victim considers an infection to have life threatening consequences, his coping strategy will be quite different from those of a victim whose perception of the infection is one of "laissez faire" (a carefree attitude). Two types of coping strategies were identified: "self assisted" and "other assisted". Self assisted are strategies that do not involve seeking help from another person (e.g., self diagnosis and medication). Prejudicial norms that stigmatise STIs, fear of revealing one's STI status and avoidance of health related services are factors likely to influence the adoption of such a strategy. Other assisted strategies are those that are entirely dependent on the assistance provided by other people. Community norms, strong informal networks and availability of social support may lead an individual to adopt such a strategy. More than 48% of all the respondents indicated that their coping strategy was self assisted while less than 10% indicated it was other assisted. Majority of those who adopted self assisted measures were those who desire to maintain secrecy about the infection. Any effort made towards seeking care and treatment or any action that was taken which directly relates to the infection was done without the knowledge of other people around. The need to maintain secrecy and to avoid embarrassment were two commonly cited reasons why they resorted to these kinds of measures. Many of the respondents in this category were also found to be those for whom the infection was still manageable. Those who adopted other assisted strategies were usually those for whom the infection had reached a critical stage, or people who had strong links with the peer group. The need for advice or help from other people may have compelled these ones to resort to other assisted measures as a coping

strategy. This was especially true for those who relied on their friends to give them information about how to seek care and treatment. In almost all the cases, a combination of the two was adopted in coping with the infection. This finding points to the fact the peer group play a major role in the coping strategies adopted by those in this category.

5.7 Partner Notification

The issue of partner notification has been identified as an important strategy in the control and treatment of sexually transmitted infections. Equally important is the attitude of the partner to the news of infection. Because of the importance attached to this issue, respondents' attitudes toward partner notification was also investigated. Specifically, the study examined adolescents' attitudes to partner notification and the factors that are likely to predispose an adolescent to informing his/her partner about an infection. Also examined was the partners' reaction to the information and the implications these may have.

As shown in the table 5.9 below, adolescents' attitudes to partner notification is negative. While a majority of respondents (70.2%) in the general survey indicated that they would be willing to notify their partners about the infection, very few of the respondents (15.5% of males and 19.5% of females) in the clinic survey, actually informed their partners about the infection. The data showed that partner notification was determined by many personal and societal factors such as perception of who was to be blamed for the infection, the kind of relationship existing between the respondent and the host partner, whether partner can be located and more importantly if the respondent was still interested in continuing with the relationship, a factor which in turn depended on the reaction of the partner to the news of infection.

Table 5.9 Partner notification and partner's reaction to the information.

Did you inform partner ?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	31	31	39	39	20	20	50	50
No	40	40	38	38	58	58	20	20
No Response	29	29	23	23	22	22	30	30
Total	100	100	100	100	100	100	100	100
*How did partner reacted ?								
Suprised	7	22.6	13	33.3	6	30	30	60
Angry	7	22.6	5	12.8	4	20	6	12
Ashamed	5	16.1	5	12.8	2	10	5	10
Denied Responsibility	7	22.6	7	17.9	6	30	6	12
Other	5	16.1	9	23.1	2	10	3	6
Total	31	100	39	100	20	100	50	100

* **Note:** Partners' reaction was calculated only for those who informed their partners

The reaction of the partner to the information was also dependent on who is perceived to be responsible for the infection. In other words, if the partner was responsible for the infection, the reaction would be very different to what would have normally been exhibited if the respondent was the one who caused the infection. Characteristics of the partner which are likely to influence his/her reaction include sex, (male vs. female) residence (urban vs. rural), age (older vs. younger adolescents) and the kind of relationship that exists between the respondent and the host partner (casual vs. serious). In many instances partners usually reacted with suprise (10%), anger (6%) and shame (5%). Male partners were more likely to be suprised or ashamed, while the females are usually suprised or deny responsibility.

Ignorance about their own state of infection also influences partners' reaction when they are informed. Thus, it is quite understandable why many partners may have been suprised, ashamed or denied responsibility when they heard about the infection. The reason was because they may be learning about the infection for the

first time; and in many cases, partners (usually females) who remained asymptomatic for a long time were the ones who are mostly suprised or ashamed. Participants in focus group discussions explained that such a situation may lead to accusations and counter accusations especially if none was willing to accept responsibility, however, they are likely to seek solution to the problem if the relationship was serious.

It is very likely that many young people who are infected may not have informed their partners about the infection. From the results presented in table 5.10 above, the majority of the respondents did not inform their partners about the infection. In cases where the partner was a commercial sex worker or a casual sex contact who can not be traced, or even in cases where the respondent was no longer interested in continuing with a relationship, then respondents may not bother about informing the partners. Similarly, refusal to notify partners is predicated on the reaction of the respondent when he/she first discovered the infection. Moreover, where the respondent suspected that the partner may react violently if informed, then no effort is made toward partner notification

Whatever the reaction, there are obvious implications for the existing relationship between the respondents and their partners. One of these is that the respondents may become suspicious of such partners. Because STIs are often painful and the respondents are scared of a reoccurrence, relationships are sometimes severed. In some cases, even where the relationship is serious, the feeling of betrayal of mutual fidelity, usually exhibited by males, may likely influence a decision to severe the relationship. Furthermore, as out-of-school male participants in the FGDs agreed,

> "*a wise person will not think twice about severing the relationship and stop having any dealings with such a person because it could result in death if one does not detect it in time and go for treatment. So, why would you want to keep trusting your life to such a person?*" (Out-of-School males, Ibadan, February, 1996).

A majority of the respondents, mostly older males (age 20-24 years) indicated that they would discontinue with the relationship or will stop having sexual relations with the person because of lack of trust.

In spite of the foregoing and as the previous findings have shown, the outcome of an infection or the reactions following them were largely determined by the intensity or the seriousness of the relationship between two people. Although only very few respondents, mostly females, explained that they would continue their relationship; especially where there are expectations of marriage.

CASE 4:

Yemisi's case, a 24 year old female student of a tertiary institution, clearly illustrates this point. According to her...

> "*we had both been going out for quite some time now and we are hoping to be married soon after our education. Although, I know that he has other sexual partners, but because I love him, I kept quite.... you know...it is only natural for boys to be boys. Anyway, about two months ago, I noticed this unusual signs around my private part* (this was diagnosed as genital warts) *and I reported at the clinic where it was confirmed that I had an STI. Since he was the only sexual partner that I had, I told him about it and requested that we both go for treatment. At first he refused, but after some pressure, he agreed to come with me. Incidentally, he had also noticed the symptoms but declined to confide in me because he wasn't sure how I would take it. Anyway, after a while, he confessed to me that he was aware of it and that he had gone for treatment* (which was not effective, judging by the outcome). *We are both receiving treatment now, we had talked about it and he has promised it wont happen again.*"

When probed further why she took it so lightly, in view of how other people would have reacted to it, she explained...

> " *he wants to marry me and I love him and you know love is not supposed to record wrong doings. Moreover, I can't start looking for someone to marry me at this stage.*"

In table 5.10, the results of logistic regression models calculated to predict the odds of informing a partner about an infection is presented after controlling for a set of independent variables.

Table 5.10: Odds ratios of informing a partner about an infection

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
	All (n=200)	Males (n=-100)	Females (n=100)	15-19 years (n=90)	20-24 years (n=110)
Marital Status					
Single (r)	1.00	1.00	1.00	1.00	1.00
Partnered	1.04	1.04	1.04	.92	.94
Main Activity					
Worker (r)	1.00	1.00	1.00	1.00	1.00
Student	.46	.48	.48	.55	.55
Nothing at present	5.23	4.65	4.65	4.63	4.63
Access to Income					
Yes (r)	1.00	1.00	1.00	1.00	1.00
No	.79	.79	.79	.81	.79
Parental Upbringing					
Carefree (r)	1.00	1.00	1.00	1.00	1.00
Permissive	2.31*	2.32*	2.32*	2.21*	2.23*
Strict	1.21	1.18	1.18	1.26	1.25
Number of Partners					
One (r)	1.00	1.00	1.00	1.00	1.00
Two	1.43	1.61	1.61	1.39	1.39
Three	.87	.82	.82	.78	.78
Source of Infection					
Boy/Girlfriend (r)	1.00	1.00	1.00	1.00	1.00
Casual Partner	.64	.64	.64	.65	.63
Prostitute	.00	.00	.00	.00	.00
Can't Remember	.18**	.17**	.17	.17**	.17**
Log Likelihood	228.5	226.3	226.3	226.5	226.7

** Significant at 0.01 * Significant at 0.05 (r) Reference group

The table above presents the results of logistic regression models calculated to predict the probability of informing a partner about an infection. From the table, the results in model 1 showed that among all the respondents, those who are partnered have a higher probability of notifying partner about an infection than those who are single. It is interesting to note that those who do not have anything they are currently doing are about 5 times more likely than those who are either students or workers to notify a partner about an infection. The results presented when access to income was controlled for showed that income is a crucial factor that determines the probability of informing a partner about an infection. Those who do not have access to income are less likely than those who had to inform their partners about an infection. Respondents who were brought up under permissive parental supervision are also more likely to inform partners about infections than those brought up by parents who were strict or carefree. It is interesting to not e that those who reported that they had about 2 partners are also more likely to inform partners about infection than respondents with one partner. Where an individual's source of infection is a boy/girl friend, someone with whom there is a serious relationship, probability of notifying partner about an infection is higher than where the partner is a casual partner, a prostitute or someone that can not be remembered. Those who contracted the infections from prostitutes are the least likely to notify them of an infection. This may be due to the fact that the respondents themselves may be aware that there is a high probability that a commercial sex worker may have an infection and informing such a person may not serve any useful purpose.

In models 2 and 3, there were no significant differences in the probability of partner notification between male and female respondents. Among older and younger adolescents, the probability of informing a partner about an infection slightly differs. Older adolescents in partnered relationships, and who were brought up under permissive parental supervision have a higher probability of informing partners about an infection if it occurs. On the other hand, younger adolescents who do not have

access to income and who contracted the infection from a casual partner have a higher probability of notifying partners in case an infection occurs.

In estimating the probabilities of partner notification, factors such as partnered relationships,, lack of a major preoccupation, lack of access to income, permissive parental upbringing, having 2 partners and if the source of infection is a boy/girl friend are very crucial and as such they favourably dispose an individual to notifying a partner about an infection. A number of explanations could be provided for these findings. It stands to reason that those who have partners with whom the have a serious relationships, such as those in partnered relationships or those who have boy/girlfriends would inform their partners about an infection in order to forestall any unpleasant consequences that may arise as a result of the infection and such a move may be initiated in order to seek a common solution to the infection. For those who do not have a major preoccupation, it is not unlikely that they want to inform their partners because of the need to also seek a common solution to the problem of infection. The need to notify a partner may be due to the fact that such partners are capable (or perceived as capable) of providing a solution to the problem.

Access to income is a crucial factor in the treatment of STIs. It is not surprising therefore that those who do not have independents sources of income are less likely to inform their partners when an infection occur and this may be because they may not be able to afford the cost of treatment for themselves as well as for the partners when the need arise. For respondents who were brought up under permissive parents, the higher probability of notifying partners about an infection may have been influenced by the childhood experiences (socialisation process) where they were brought up to feel free to discuss personal problems with their parents and this may have influenced their higher probabilities to inform partners about an infection. This is consistent with the earlier findings that respondents who were brought up under permissive parental supervision have liberal attitudes to issues of personal concern.

Finally, it is not surprising that those who contracted the infections from boy/girl friends have a higher probability of partner notification. This may be due to the fact the persons described as such are those with whom there is some level of commitments in the relationships and under normal circumstances, such persons should be informed and treatment sought for them.

5.8 Seeking Treatment for Partners

To minimise the rate at which infection is spread, it is important for victims to also seek treatment for their partners. Studies have established that when partners are identified and treated, the rate at which infections are spread in the population would be largely curtailed. For this reason, contact tracing and partner referral has generated a lot of attention in the literature on the treatment of STIs. However, locating and treating a partner for infection depends on a number of factors. First, the victim must be willing to disclose information about the partner, the partner must be located and there must be a follow up to ensure that adequate treatment is given. In addition, such a partner must demonstrate positive attitudes toward being treated for the infection. Where this is not the case, a major goal of treating STIs may not be realised. Although the issue of partner notification has been discussed, available evidence however suggest that when respondents have a serious relationship with the partner, they are likely to inform them about the infection and also seek treatment for them. In addition, it is important to point out that only those who sought treatment for themselves are likely to seek treatment for their partners. Tables 5.11 below provide evidence on respondent's attitude to seeking treatment for partners and how partners also reacted to such efforts.

Table 5.11: Respondents who considered taking partners for treatment and Partners' response

Consider treatment for partner?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	48	48	22	22	50	50	20	20
No	26	26	58	58	14	14	70	70
No Response	26	26	20	20	36	36	10	10
Total	100	100	100	100	100	100	100	100
*Partner's Response								
Agreed	36	75	10	45	36	72	20	100
Refused	12	25	12	55	14	28	-	-
Total	48	100	22	100	50	100	20	100

* Note: Partner's response was calculated only for those who considered treating partner.

From the table 5.11 above, it is shown that males and those living in the urban areas are more likely to seek treatment for their partners. It is also shown that the majority of the partners responded positively to the efforts by the victims to seek treatment for them. It is important to note that none of the rural respondents' partners refused to be treated. As earlier indicated, partners who could be traced and have serious relationship with respondents were those who agreed to go for treatment when the respondents asked them to. An interesting finding is that which showed that some of the partners refused to go for treatment even when they were told about the infection, although it can not be conclusively said that such individuals never received treatment or sought for health care as they may have other means to do so.

Table 5.12 presents odds ratio of logistic regression models calculated to predict the factors which are likely to determine whether a victim will seek health care and treatment for his/her partner.

Table 5.12: Odds Ratios of Seeking Health Care for Infected Partners

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
	All (n=200)	Males (n=100)	Females (n=100)	15-19 years (n=90)	20-24 years (n=110)
Marital Status					
Single (r)	1.00	1.00	1.00	1.00	1.00
Partnered	2.53**	2.54**	2.54**	2.32*	2.35*
Main Activity					
Worker (r)	1.00	1.00	1.00	1.00	1.00
Student	.23**	.23**	.23**	.26**	.26**
Nothing at present	1.32	1.32	1.33	1.14	1.14
Access to Income					
Yes (r)	1.00	1.00	1.00	1.00	1.00
No	7.00**	7.01**	7.01**	7.55**	7.34**
Parental Upbringing					
Carefree (r)	1.00	1.00	1.00	1.00	1.00
Permissive	1.56	1.56	1.56	1.48	1.49
Strict	.42	.42	.42	.44	.44
Number of Partners					
One (r)	1.00	1.00	1.00	1.00	1.00
Two	1.04	1.04	1.04	1.02	1.01
Three	.23	.22	.22	.19	.19
Source of Infection					
Boy/Girlfriend (r)	1.00	1.00	1.00	1.00	1.00
Casual Partner	.75	.75	.75	.75	.75
Prostitute	.24	.02	.02	.02	.03
Log Likelihood	221.3	221.3	221.3	219.7	219.8

** Significant at 0.01 * Significant at 0.05 (r) Reference Group.

The above table presents the odds ratio calculated to predict the probability of seeking health care for an infected partner. The results showed that several variables are crucial determinants to whether treatment would be sought for an infected partner or not. In the first model, calculated for all the respondents, those who are in partnered relationships are almost 3 times more likely than those who are single to seek treatment for their partners. Interestingly, respondents who do not have a major preoccupation also exhibited a higher probability of seeking care for infected partners than those who are either students or workers. It is interesting to note that those who did not have access to income have a significantly higher probability of seeking

treatment for partners than those who had access to income. In addition, respondents who were brought up under permissive parental upbringing, who have 2 partners and who also contracted the infection from a boy/girlfriend have higher probabilities of seeking treatment for their partners.

There were no significant differences in the results obtained in models 2 and 3 for males and females and those obtained for models 4 and 5 between younger and older adolescents. Although among younger and older adolescents, older adolescents who are in partnered relationships and had permissive parental upbringing have a higher probability of seeking treatment for partners while younger adolescents who did not have access to income, had two partners and who contracted the infection from a casual partner.

These results imply that factors such as partnered relationships, permissive parental upbringing, accessibility to income and source of infection are crucial in considering a partner for treatment. This is consistent with earlier findings especially with regard to the odds of notifying a partner about an infection. It stands to reason that since the intention to notify a partner about an infection may also signify efforts to seek treatment for them. Thus, those who are in partnered relationships and who contracted the infection from their boy/girl friend have a higher probability of seeking treatment for them. For those who did not have major preoccupation, the higher probability of seeking treatment for partners may not be unconnected with the need to find a common solution to the problem of infection.

Those who were brought up under permissive parental supervision exhibited a higher probability of notifying a partner about an infection and also seeking treatment for partners and this is consistent. Although cost has been established as an important factor in seeking health care for sexually transmitted infections, respondents who did not have access to sources of income still exhibited significantly higher probabilities of seeking care for infected partners. Lack of access to income may signify inability to seek treatment for a partner, this result however demonstrates

that were such respondents to have access, they would not hesitate to seek care for their partners.

5.9 Access to Health Facilities

Access to the health care system is another factor that could impede or facilitate health care and utilisation of available facilities for treating STIs both for the victim and his/her partner(s). The structural-environmental factors (e.g., location of the clinic, speed with which care can be obtained, the physical and administrative structure, cost of services, availability of youth-friendly personnel, privacy, etc.) and more importantly providers' attitudes have been cited as important factors that facilitate or hinder accessibility to health care. Provider attitudes, beliefs and values can affect their behaviour toward STI patients and when this is negative, young people may be unwilling to utilise available services. Other factors which are required of providers and which have a potential for facilitating or inhibiting utilisation of service include knowledge and skills in treating STIs, psychological and psycho social factors and communication skills.

A closer examination of these factors provide insight into why many young people do not make use of available services for treating infections. Of particular note is the feelings of fear, guilt and shame experienced by many young people when they respond to questions from providers. Similarly, the social, contextual and administrative aspects of service delivery in many hospital settings do not guarantee privacy or anonymity which young people need to make use of services as those who are seen at such clinics are likely to be stigmatised. In the case of young girls, presenting themselves to such clinics for diagnosis and treatment is not often considered a viable option since such clinics are known to be patronised by men and commercial sex workers. This situation is particularly worse in government owned hospitals where there are no separate facilities for both male and female clients and other members of the public in need of other kinds of health care. In focus group discussions, young people indicated that...

> *"we prefer the private clinic than government owned hospital. Although, when you go to either of the two places, the way the*

Nurses look at you..., you will pray that the earth should open up and swallow you, but in the private hospital, they are a little cautious, because they know you are paying your money. The government hospital is the worse. They treat you like rag".

CASE 5:

And in the case of Sunday, a 17 year old who was interviewed for the case studies

"*I knew long ago that they treat STIs here (UCH), but I did not want to come here when I discovered I was infected. You never know..., there may be somebody who knows you or your parents and before you know it everybody will hear that you have an infection. Moreover, the way the doctors and nurses will even ask you questions, you will feel that you have committed the worst offence ever. I was forced to come here when other things I tried did not work*".

5.10 Counselling

Counselling has been identified as a major aspect of STI treatment. The major goal of counselling is to ensure changes in behaviour for those who are infected and are currently receiving treatment. Ideally, counselling should commence from the first day an individual reported for treatment. Owing to the important role counselling occupies in the treatment of STIs, respondents were asked if they were counselled and at what stage did they receive counselling.

Only those who attended the STI clinics at UCH and Adeoyo indicated that they were counselled. In other words, it is likely that counselling was not given at other places where infected individuals seek for treatment. This suggests counselling may only be offered at the established STI clinics. Even at these clinics, counselling is not offered until the last day the patient is visiting. Ideally, counselling should have commenced right from the first day of visit, but what happens on this day can not be regarded as counselling in the real sense of the word. In most cases, the patients were asked a series of questions (e.g., "who was the last person you had sex with?"). Ideal counselling should be empathetic and non-judgemental, honest and respect the patients feelings. It should normally include information on how to cure the infection, how to avoid further spread, partner notification and treatment, return visits to the clinic to ensure there is proper cure, emphasis on the use of condom for sexual intercourse, especially casual sex, if one can not abstain, etc.

Majority of those who were counselled did not indicate the specific issues they were counselled on. The usual response was "I have forgotten" or "It does not matter". This is an indication of the weakness in counselling, which ought not be forgotten by the patient. On the other hand, those who remembered usually indicated that "I was told to always use the condom" or as in the case of most females and in a manner that sounded very judgmental "be faithful to one partner", or "you are too young, so abstain from sex". Since counselling are offered in this judgmental and very impersonal manner, it is not surprising that some of the respondents don't take to

such counselling. The reason is because they feel the advice can not work or that they can not practice such. Of course, the fatalistic attitude of some individuals should not be overlooked For those who heeded the advice, many are doing so because according to them, "an infection is a terrible experience you won't want to go through all over again if you can".

5.11 Immediate Reactions and Behavioural Patterns

A major objective of this study is to examine the immediate reactions and consequences of infections on the behaviours of young people when they have an infection. In other words, what are the likely behaviours that would be exhibited by an adolescent who is infected with an STI and what psycho-social factors are likely to influence and determine such behaviours. Consequently, issues such as reaction of the victim and the partner to the news of infection, attitudes towards partner notification and preventive measures, etc. were addressed in the research.

Societal factors to a large extent determine behaviours in several ways. First, society provides the context in which behaviours are shaped and conducted and to a great extent it determines the particular social environment an individual lives in. The opportunity structure, the available role models, the reinforcement contingencies that further shape behaviours, the social norms perceived, the beliefs, attitudes and values and the self perception of an individual are for most part influenced by his/her social environment and this in turn affect behaviour (Wallace, 1988).

In some African societies, contracting a sexually transmitted infection is considered a 'rite de passage' to manhood for many young boys since they are not usually considered mature until they have had an episode of STI or an insignificant nuisance for an older man . Several studies, for example Carael (1993) and Dare and Clelland (1995) have asserted that a young man is only considered mature if he has had an episode of gonorrhoea infection or that one has not "arrived" if he has not experienced an infection especially since gonorrhoea is considered as "arun gbajumo".[3] While this may signify a societal expectation that for most men the disease is a normal process in becoming an adult (although the extent to which this belief still holds nowadays can not be determined in view of the AIDS scourge), the sociocultural context of STIs is significantly different for women. In other words, STIs among women are rarely overlooked as is the case with men. In many African

[3] Arun Gbajumo (Yoruba) Disease of the Elite.

societies, the occurrence of an STI is an extremely shameful thing for a young girl and her whole family. It is not unlikely that such women may be regarded as prostitutes since only prostitutes are known to harbour such diseases. For this reason, many women find it difficult to seek care since presentation to a public STI clinic may be so value laden that it is not considered a viable option.

In spite of the beliefs about STIs, especially for men, the reaction of most people when infected is an indication that they never expected themselves to be infected. The table below showed the responses to questions on how respondents first reacted when they discovered or were told that they had an STI.

Table 5.13 Distribution of respondents reaction when they discovered they had an infection

Reaction (n=200)	% Male	% Female	% Urban	% Rural
Suprised	33	41	37	62.9
Confused	32	26	29	35
Angry	25	15	30	16
Blamed myself	21	30	22	10
Others	10	28	4	6

Note: Total percentages may not add up to 100 since respondents mentioned more than one reaction

Suprise

Several reactions, including suprise, confusion, anger and self blame are likely to be exhibited by an infected person. Perhaps, suprise is a major reaction for most infected individuals, especially females. Similarly, in both urban and rural areas, suprise appeared to be the major reaction of most of the respondents when they discovered the infection. These reactions could have a lot of implication for an individual's behaviour toward the infection. In the context of Weber's social action theory, it is pertinent to examine why an individual will exhibit such a reaction when he/she is infected with an STI, the action that is likely to follow such a reaction and what purpose does he/she seek to achieve? Similarly, the Parsonian theory of voluntary social action suggests that societal factors may influence the way an

individual would respond to a particular situation. Therefore, what societal factors are likely to influence such reactions and what implication would these have?

Quite a number of reasons could be advanced for these reactions to an infection. For example, a "suprise" reaction may be an indication of the fact that respondents under estimated their risk of exposure to an infection. Secondly, it is possible that such respondents least expected their partners (persons from whom they contracted the infection) to have an infection. In this case, suprise may arise because most respondents in this category are those who were infected by partners with whom they have a serious relationship and they least expected them to have an infection. The occurrence of an infection may be due to one of them having other sexual partner(s). Feyisetan (1991) has already suggested that many young people, especially males, do not expect their serious partners to have other sexual partners. Suprise, therefore is a reflection of the betrayal of mutual fidelity expected between two people in a serious relationship. Responses from participants in focus group discussions provided more insight on this. According to them...

> *"naturally, you would be suprised that someone whom you love and trusted has such an infection and couldn't even tell you but went ahead to get you infected. How can you suspect that your boy/girl friend is having an affair with someone who has an STI and he/she will in turn pass on the infection to you?*
>
> **(In-School Boys, Ibadan, March 1996).**

Interviews with some of the respondents for the case studies also showed a similar reason why people may be suprised that they have such infections. The case of Wale and Onomeh, both students in higher institutions clearly illustrates why individuals could be suprised if infected by someone with whom they have a serious relationship.

CASE 6

According to Onomeh who was infected by her fiancee, an older man...

"*We have been going out for more than 2 years and we are hoping to get married someday. I trusted him so much especially because we are both devout Christians and I never expected him to have affairs with other ladies. At first I never thought it was an STI until the doctor confirmed it and since he was the only sexual partner I had, I knew he must have infected me. I thought there was a mistake somewhere until I confronted him and he confessed*".

CASE 7

Wale's case is also similar. In his own words...

Although, we started the relationship not too long ago, she was young, about 17 years, innocent and good looking. Even in my wildest imagination, I could never have suspected that she had an STI. One day, for the first time, we had sexual intercourse and a few weeks later, I started noticing some unbearable pains and a discharge. I did not suspect an STI until it became worse and I had to see a doctor who confirmed that it was an STI. I just couldn't believe that such a girl has an infection".

CASE 8

The case of Rachel, who has just completed secondary school, is also instructive especially if one has abstained from sexual intercourse in the recent past. For most females who have been infected over a long period and probably did not realise it because they are asymptomatic, such a sudden manifestations of the symptoms which could be attributed to other things can actually lead to such a

reaction. The following is Rachel's an account of how she discovered that she had an STI

> *"In the last 2 months, I began to notice some sores on my private part in addition to a yellowish discharge with an offensive odour. I never suspected anything as serious as an STI because the last time I had sex was about 1 1/2 years ago. At first I thought it was a case of toilet infection[4] which was very common in my house since we all share the same toilet facilities. I visited a private clinic where nothing a serious as an STI was diagnosed. when the situation did not improve after some time, I told my mother who being a nurse directed that I should go for an STI check up. At the clinic, I was extremely suprised when the doctor confirmed that I had been infected with Trichomoniasis and had remained asymptomatic over a long period".*

Anger

Respondents who suspected that the person responsible for infecting them was aware of his/her own state of infection, yet went ahead to pass the infection to them may react with anger. Similarly, those who got angry, like those who were suprised, least suspected that their partner(s) harbour such an infection. Most of those in this category usually felt that the host partner[5] must have deliberately passed the infection to them. Anger may not always be directed at the host partner, but also at oneself for "being so careless about taking a preventive measure". In six of the case studies, and from responses in the FGDs, such anger had often resulted to violent acts against the host partner, especially if it was a girl or there was subsequent denial of responsibility.

[4] In the course of the clinic survey, several people who came to the clinics and who were approached to be interviewed usually declined for reasons that they have only a toilet infection. Although, almost all such people were confirmed to have been infected with an STI after laboratory tests were performed. Some of these patients had actually remained asymptomatic over a long time.

[5] The host partner is the one from whom the infection was contracted by the respondent.

CASE 9

Kayode, a 24 year old mechanic narrated his case in one of the case studies, and it typifies the above situations. In his own words....

> *"we had a relationship which was not going too well. After some time we broke up but resumed the relationship because friends prevailed on me. Before we broke up, we regularly had sex and quite naturally we continued when we resumed the relationship. At first, I was skeptical about having sex with her, knowing the kind of girl she is, but somehow, I couldn't resist it. Two months after we resumed sexual relations, I began to notice some symptoms of gonorrhoea. I asked her if she had the infection, but she denied it. When I saw the doctor and it was confirmed, I persuaded her to go with me. Initially she refused, claiming that she does not have any such infection. Since she had been my only sexual partner in the last four months, I kept persuading her until she came to the clinic where it was confirmed that she had been infected for more than 6 months. I couldn't wait till we got home and after giving her the beating of her life, told her not to see me anymore".*

Although, from this account it appeared that Kayode assumed that the host partner deliberately passed on the infection, on the contrary however, it could be that the host partner herself (and this is true for most females) was ignorant of her state of infection because she had remained asymptomatic and may only be aware of this state when her partner manifests the symptoms and informs her. This implies that where many females remain asymptomatic, they could very well continue sexual relations with all their partners thereby spreading the infection among them and these partners may also be links in the transmission chain where they have their own network of sexual partners.

Confusion

"Confusion", another reported reaction, often resulted from a combination of several factors including painful feelings, the fear of social stigma, lack of information and relative inexperience about what to do when such a situation arises. When an individual least expected that he could be infected, a sudden manifestation of symptoms may impair one's sense of reasoning or judgement about what best to do in such circumstances. The argument that confusion could arise as a result of relative inexperience is further strengthened by fact that the majority of those who indicated that they were confused are those who were infected for the first time.

Self Blame

Knowledge of risks associated with certain kinds of behaviour (for example, having unprotected sex with a commercial sex worker) may not be strong enough to warrant adoption of safety measures when engaging in such behaviours. Young out-of-school male adolescents among whom such behaviours are common are very likely to "blame themselves" when confronted with an infection especially when there is knowledge of the risks involved, yet adequate measures were not taken to prevent such risks. In focus group discussions participants indicated that such a "careless attitude" deserved whatever consequences arise from it.

It is pertinent to mention that these reactions are not mutually exclusive. In fact, one could lead to the other and some necessarily led to others. Moreover, the reaction of an individual was largely determined by his/her perception of who should be blamed for the infection. Where the respondent felt that the fault was his/hers, the reaction was different from those of someone who felt that the partner was responsible. Those who blamed their partners are more likely to get angry and/or resort to violent behaviour.

Apart from the implications STIs have for the health of the individual, severe psychological stress is another major problem that confront victims. These

psychological problems manifests mostly in feelings of powerlessness, social stigma, depression, emotional instability, anger at the person who is responsible for the infection, anxiety about the kind of infection it could be and the possible outcome of the infection, and self blame. As discussed above, a combination of these affect attitudes to health seeking behaviour. Studies have indicated that some populations, (for example, those in low income groups, women) most affected by STIs suffer high rates of psychiatric symptoms for depression and anxiety (Catalan, et.al., 1981; Fitzpatrick, et.al., 1985; Magura, et.al., 1989; Ross, 1987) and this has been explained as the direct effect of the emotional impact of STI diagnosis (Goldmeier and Johnson, 1982; Drob and Bernard, 1986).

Other aspects of life which are also affected by the infection include participation in economic and social activities. The consequences of an infection are usually very traumatic for women than it is for men. They are more severely affected psychologically, socially (due to cultural beliefs regarding STIs among women) and economically.

CASE 10

Esther, a 21 year old petty trader in Bodija market illustrates how a victim of infection can suffer severe consequences. Her story is best presented in her own words...

> *"I used to have 2 sexual partners, one was an older man who was always spending money on me, and the other was younger, whom I met much later and who offered to marry me. About six months ago, I began to notice some unbearable pains in the lower part of my abdomen and at the same time some whitish discharge from my private part. Since I am not too well educated, I thought it was a minor ailment and therefore I took some antibiotics prescribed by a drug hawker and although, the pains disappeared the discharge*

continued. I waited another one month, hoping that it would stop, but it did not. I then complained to one of my friends who took me to a more reputable drug seller (referring to a pharmacist) *who gave me a further prescription that yielded no results. After about three months and the situation was getting worse, I went to a private hospital where I was referred to this place* (STC, UCH). *I could not tell my fiancée what the problem is, but each time he comes to my place and requests for sex, I usually deny him because I could not bear to let him find out. We usually quarrel over my refusal and he has now left me. I have spent considerable time going to and from the hospital and my business has suffered seriously. In addition to this, I am not sure what is going to happen now, since the nurses told me that the damage is quite extensive*".

5.12 Confiding in Significant Others

Infection with an STI most often carry with it a powerful social stigma such that many people who are infected do not often wish to disclose their STI status to other people. Nevertheless, research has pointed out that the peer group constitute an equally powerful source of information and reference group for young people on sexual matters. Thus, it is not unlikely that those who are infected with STIs may also confide in the peer group. Moreover, STIs are infections that can not be left unattended for a long time because of their ability to cause severe and permanent health problems. Thus, when an individual is infected, the concern for health care and treatment, if nothing else, serve as powerful reasons for the individual to confide in other people about the infection. One of the study's objectives focuses on when, why and how individuals with infections confide in other people, especially the peer group. In addition, the study sought information on the influence of the peer group and how this determines an individual's attitude toward infections and his/her health seeking behaviour. The importance of this derived from the fact that normative behaviours within the adolescent subculture are often sharp departures from the established societal norms and values. Consequently, respondents were asked to specify if they confided in other people, apart from those responsible for diagnosing and treating the infections. The findings are presented in the table below.

Table 5.14 Persons whom respondents informed about the infections

Did you tell someone ?	Male		Female		Urban		Rural	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	70	70	54	54	60	60	64	64
No	17	17	29	29	26	26	20	20
No Response	13	13	17	17	14	14	16	16
Total	100	100	100	100	100	100	100	100
* Who did you tell								
Friend	35	50	15	27.8	49	81.7	32	50
Older person	5	7.1	3	5.6	4	6.7	14	22
Relative	9	12.9	13	24.1	7	11.7	8	12.5
Other	14	20	23	42.6	-	-	10	15.5
No Response	7	10	-	-	-	-	-	-
Total	70	100	54	100	60	100	64	100

Note: Percentages calculated only for those who confided in someone

The table above shows that over half of the respondents indicated that they informed someone, including friends, an older person or a relative about the infection. The reasons for informing such people are because they are confidants, or because they are more experienced in such matters. Similarly, such people were informed because they were very understanding, responsible and can be trusted. Trust implied that such a person can keep the matter secret and friends (peer group members) were mostly mentioned in this instance. In many instances, respondents indicated that they informed these people because they expected to receive some assistance from them especially when initial attempts at finding solutions proved ineffective. As such, respondents were willing and at times desperate, depending on the situation, to try whatever solution was recommended. This showed that the peer group (who constituted the majority of those from whom advice were sought) exerts a powerful influence on how adolescents infected with STIs are likely to behave, especially with regard to health seeking behaviour. The fact that more than 90% of those who were given some kind of advice adhered to what they were told clearly indicates that the peer group may have a very powerful influence on the behaviour of

an adolescent with regard to health seeking behaviour. Participants in focus group discussions provided more insight on this when they said...

> " *normally, when you have this kind of problem, you would first try to find a solution to it by yourself and when what you tried is not working, you have to tell your friend or someone who is more experienced than you are. What that person tells you, if he is experienced will help you solve the problem. However, you need to be careful about who you talk to so that the thing (infection) will not be the talk of the town*" **(In-School male, Tapa, March, 1996).**

When an individual contracts an infection, the symptoms do not immediately manifest. In many cases, it takes an average of three days for example, before the symptoms of gonorrhoea manifests and this is the earliest indication of an infection. Where an individual is infected and he/she engages in sexual intercourse before the manifestation of the symptom, the possibility of his or her partner being infected is also very high and this is especially true for females since transmission is easier from male to female than from female to male. It is interesting to note that some of the respondents may not be mindful of the possibility of infecting someone else as they indicated that they still engaged in sexual intercourse even when they realised that they were infected. Although this study did not address why some people engage in this kind of behaviour, it clearly indicated that the rate at which infections spread may be very high given that such people may have a network of sexual partners. On the one hand, some of the respondents may be ignorant of the implications of this kind of behaviour.

5.13 Summary and Conclusion

Two hundred respondents, equally divided between males and females and urban and rural respondents were interviewed in the health facilities. The age distribution showed that the respondents' age range was between 15-24 years with those between 20 and 24 constituting the majority. Almost all the respondents were single except for a few who indicated that they are in partnered relationships. Yoruba respondents accounted for the majority owing to the area of study. Christians were the majority of all those who were interviewed. Over half of them also had some form of education. Only in very few cases do the respondents live on their own and less than 30% had access to income.

The evidence available suggest that STIs are a common problem among adolescents as about 15% of those interviewed during the survey reported that they had been infected at least once. The proportion of young people who were infected with an STI increased to 54% when hospital records over a six month period were examined. Furthermore, adolescents constituted a significant proportion of all those who reported for treatment at the various health facilities during the period of the clinic survey. They made up about 48% of all the patients attending health facilities for treatment. Older adolescents, between the ages of 20 and 24 accounted for the largest proportion of those who had reported for treatment of infections. Commonly reported infections included gonorrhoea, syphilis and genital warts. There was little variation between urban and rural respondents

A major finding was that many young people were unable to remember the source from which they contracted the infection. This may suggest that such respondents had several sexual partners or had remained asymptomatic after a long time since they were infected. On the other hand, a proportion of the respondents also indicated that they caught the infection from someone with whom they had a serious relationship.

Several factors among which are knowledge of how infections occur, ability to recognise symptoms, perceived severity of infection, perceived efficacy of treatment method, cost, social environment and the kind of relationship one has with partner largely determined how an individual will seek and utilise health care facilities for treatment once infection occur. Other factors such as self esteem, feelings of depression and anxiety, social and group norms, influence of informal; network, available social support and providers attitude also affect utilisation of health facilities.

At some point during the period of infection, young people sought the services of a qualified medical personnel for treatment, this was not usually done until many of them have tried to solve the problem by themselves. Aside the fact that treatment was usually delayed when symptoms are noticed, sources from which infections are diagnosed also, to a large extent, influenced the kind of treatment that was administered. For example, if infection was diagnosed by self or by members of the peer group, then self treatment was likely to follow such a diagnosis. Cost of treatment was also identified as a major barrier to the utilisation of health care and the fact that most young people are confronted with many immediate life concerns also contributed to the low utilisation of health facilities.

The mental state of an infected individual largely determines the coping strategies that are adopted during the period of infection. Two kinds of coping strategies were identified: 'self assisted' and 'other assisted'. Self assisted are measures that require no external help or assistance. In other words, whatever action was taken, only the respondent was involved. The 'other assisted' strategy is such that respondent usually require help or assistance from other people, especially members of the peer group and this is usually when the infection had reached a critical stage.

Generally, the attitude of respondents to partner notification was negative. Only in a few cases did respondents indicated that they informed their partners about the infection. Personality and societal factors including the perception of who should

be blamed for the infection, the commitment to the relationship and whether the partner could be traced were found to be crucial to partner notification. Furthermore, the findings showed that where partners were informed, the main motive was to seek treatment for them, however the partner must also be willing to go for treatment. In some cases, partners were informed and those who were informed demonstrated positive attitudes to treatment efforts..

Seeking health care at the health facilities is often delayed until the infection had assumed a critical condition. The reasons are because many people lack access to health facilities given the feelings of guilt, fear and shame usually experienced by many as a result of infections. In the same vein, counselling, which is considered crucial in the treatment of STIs were not usually given. The goal of counselling is to achieve behaviour change among those who are at high risk for the acquisition of infections. The findings showed that the counselling offered were often judgmental and value laden such that many adolescents do not take to them.

The psycho social consequences of infections for most individuals are often severe, especially for females owing to the negative societal reactions to females who are infected with STIs. Because it is an extremely shameful thing for a woman to report an infection, it makes it more difficult for many of them to reach health care and this sometimes have severe psychological trauma on such women. In any case, most people who find themselves infected with an STI never really expected to be infected. This assertion is made in view of the numerous reactions reported by the respondents upon the discovery of an infection. Such reactions including suprise, anger, confusion, self blame, etc. are often exhibited by victims of STIs. These reactions usually occurred as a result of a combination of several factors.

Although most infected individuals do not often wish to disclose their STI status to other people, but when an individual is infected, the concern for health care constitute a powerful reason for confiding in significant others, especially those who are members of the peer group. More than half of all the respondents indicated that

they confided in other people because they are confidants, they needed advice, because such people were understanding and because they could be trusted.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarises and discusses the significant findings from the study and their implications for reproductive health and management of STIs. The chapter is divided into two parts. In the first part, a synopsis of the major findings of the study and a discussion of their implications for the health of young people and especially for the transmission of infections among them are presented. In the second part, conclusions from the study are drawn. The various approaches that can be used to control the spread of sexually transmitted infections and their implications for research and programmatic interventions are also presented. Finally, some policy recommendations were made.

6.1 Summary and discussions of the major findings

Sexual Behaviour and Implications for the transmission of infections

Several factors which increased the tendency to postpone marriage including opportunities for education and training and earlier onset of menarche are among the major factors responsible for the commencement of sexual activities among adolescents at very early ages. Although, almost all those included in the study had positive attitudes to delaying marriage and postponement of sexual activities until marriage, their sexual behaviour however, is contrary to the positive opinions expressed. Almost half of all those interviewed had commenced sexual activities. Many of these acts are not planned as many of them have sex "at anytime" or "whenever the opportunity presented itself". In addition, there is a high level of coital frequency with several partners. An average of 2 partners was reported in the last four weeks before the survey. The practice of keeping two sexual partners was more common among males generally and more specifically among those out-of-school. According to them, the practice of keeping multiple sexual partners was a 'survival

strategy' to ensure that they do not lack a sexual partner anytime they feel like having sex and in case one partner refuses. The findings with regard to respondents sexual behaviour compelled one conclusion: that many adolescents engage in unplanned, irregular and unprotected sexual activities with multiple partners. Since the number of sexual partners an individual has is strongly associated with increased risk for the acquisition of infections, this practice has a lot of implications for contracting and transmitting sexually transmitted infections among the adolescents studied.

Knowledge and attitude toward sexually transmitted infections

There was a high level of awareness of various kinds of infections which can be sexually transmitted. Almost all the respondents had ever heard of at least one infection that is sexually transmitted and the level of awareness was similar for both the urban and rural respondents. It is interesting that commencement of sexual activity is related to the awareness of infections. The level of awareness was higher among those who were sexually active. Awareness of gonorrhoea and AIDS were highest and this has been attributed to the intensive media campaign which followed the emergence of the epidemic, warning the populace of the potential consequences of an infection with the HIV virus. Though the level of awareness is high, it may be difficult for young people to realise they have an infection even if they are infected. This is because only a few of the respondents could identify common symptoms associated with the infections they mentioned, especially for gonorrhoea and AIDS which were the most common infections known to the respondents. Even then, knowledge of symptoms was associated with having a history of infections or knowing someone who had a history of infection. The relative lack of information about how to recognise an infection is perhaps the result of several factors. First, many young people do not make efforts to get adequately informed about these infections apart from what they get on the media and from friends. In many cases, such information provided through the media are also biased in favour of the dreaded AIDS disease

such that other equally devastating STIs are relatively less publicised. Similarly, health education and information materials have also focused much attention on the issue of AIDS. This may be the reason for the low level of knowledge of symptoms associated with other STIs. The ability to recognise a symptom is nevertheless important, since it may assist an infected individual to realise he/she has an infection and seek for health care and treatment.

The relative lack of information may also be partly responsible for the gross under estimation of susceptibility to infections that many young people have. For example, because they grossly underestimate their risk of exposure, they do not take any preventive measures especially when they engage in high risk sexual behaviour with commercial sex workers. Only very few of the respondents indicated that they had ever thought of the possibility of being infected. Females are more likely to deny their susceptibility which may in fact be very high given the rate at which they engage in unplanned, infrequent and unprotected sexual activities, with many of them having multiple partners. Because they do not perceive themselves at risk for infection, only few of those who are sexually active had ever taken measures to protect themselves against infections.

Prevalence of STIs among adolescents

Several factors determine the prevalence of STIs in a population. These include the epidemiology of sexual behaviour, the health care-seeking behaviour, availability of facilities for diagnosis and treatment, attitude of health care providers and the sociocultural environment. In many developing countries, owing to social stigma, lack of government legislation and the fact that people do not often disclose their STI status until the need for treatment arises, there is a dearth of data on the extent of the problem especially among adolescents. Using information from three sources, including information derived from respondents in the general survey, those based on

hospital records and those derived from respondents interviewed at the clinics, the study estimated the prevalence of STIs for adolescents in the population.

Without doubt, STIs are becoming a common cause for concern among adolescents and the rates of infection may be as high as 15% among young people aged between 15 and 24 years with those in the 20-24 year age cohort experiencing the highest rates of infection. Gonorrhoea may also be the most common infection among this age cohort. Adolescents in both urban and rural areas did not differ much on the pattern of infection.

A major finding of the study relates to sources of infection. While many of those who had an STI were infected by someone with whom they had a stable (and sometimes serious) relationship, a majority of others could not remember the source of their infection. The probabilities are that such persons have been infected over a long time and had remained asymptomatic or that such persons had several partners and it was difficult to determine who could have been responsible for the infection. The implication is that the infection may be spreading since the possibility exists that such persons would have continued their sexual activities without knowing that they are infected.

Utilisation of health care and determinants of health seeking behaviours

Where an infected person perceives the infection as a problem, the tendency is to seek health care early in order to reduce the consequences of not doing so. Several factors, including perception of the problem, willingness to seek care and utilise existing facilities, knowledge and beliefs about STIs, ability to recognise symptoms of infections, efficacy of treatment methods, previous experiences, available personal resources, etc. all influence attitudes to seeking health care and treatment for infection. Other factors which also influence how an infected young person responds to seeking health care include self esteem., feelings of guilt and shame, depression anxiety, group norms and strong informal networks. Combining these factors, a

pattern of health care-seeking behaviour was identified. In this pattern, almost every infected person attempted some kind of self medication and where this did not solve the problem, help was sought from a qualified medical personnel. Apart from this, there was usually a time lag between the manifestation of a symptom and seeking health care. Treatment method was also largely influenced by the source from which the infection was diagnosed. In other words, the source of diagnosis is also the most likely source of treatment. The desire to maintain secrecy and cost were two of the most important factors that compel some to undertake self medication.

Partner notification has been identified as an important strategy in the control of STIs in a population. However, the study found that the attitudes of young people to partner notification is very poor. The seriousness of one's relationship with the partner, access to income, permissive parental upbringing and source of infection were crucial determinants of the likelihood of partner notification and seeking health care for an infected partner. Other factors including disclosing information about the partner, ensuring that adequate treatment is given, accessibility to facilities and demonstration of positive attitudes to treatment by the partner are crucial in notifying and seeking treatment for partners.

Perhaps, the most significant factor influencing an individual's response to an STI are societal norms and values. Society provides the context in which behaviours are shaped and conducted. The opportunity structures, roles models, social norms, values, beliefs, attitudes, etc. all influence an individual's behaviour and their response when an infection occur. There are severe psycho social consequences which result from an infection. These, among others, include surprise, confusion, anger and self blame. These factors also determine the response of an individual to the partner who was perceived as responsible for an infection. Sometimes, violent reactions were displayed toward such partners. Finally, the peer group was still a powerful reference group for most of the adolescents since many will prefer to get advice from them on what to do when infected.

The foregoing points to the fact that a lot still needs to be done to improve the attitudes of young people and modify their sexual and health seeking behaviours, especially with regard to utilisation of health facilities, seeking health care when infections occur as well as notifying and treating partners for infection. What is presented in the next section is the conclusions from the study and some recommendations which arise from these findings.

6.2 Conclusions and Recommendations

6.2.1 Conclusions

From the findings of the study, the following conclusions can be made:

1. A lot of adolescents engage in risky sexual behaviours that put them at risk for the acquisition of sexually transmitted infections. They also lack the information that is necessary to reduce the risk of infection through behaviour modification. This, in part, is due the high proportion of adolescents in the population. Thus, the proportion of the population that is sexually active and at risk for the acquisition of disease is large and will become larger than at present.

2. The epidemiology of various STIs among adolescents showed that prevalence rates are high in both the urban and rural areas. In addition, the incidence of severe complications and sequelae of STIs are also high. This is because of high infection rates and inadequate management and treatment of cases of infections.

3. Many adolescents do not readily utilise qualified sources of health care for treatment of infections except when there are complications resulting from self medication or inadequate treatment. Added to these is poor quality of and low accessibility to the health care system and the often value laden attitudes of health care providers. This discourages many young people from making use of existing facilities.

4. There are severe psycho-social problems that confront victims of infections. Moreover, the influence of peer groups and societal norms and values exert a lot of influence on the way an infected adolescent responds to the problem of infection and the kind of coping strategies that are adopted during the period of infection.

5. Finally, STI control has not been a priority for the health care system and this is visible in the sense that there are no STI control programmes. Lack of awareness of the problem of STIs and their sequelae, competition for resources to control other equally important health problems and in some cases, reluctance to deal with diseases transmitted by sex have all contributed to the persistence of the

problem. Whatever the situation, STIs are infections that have exerted considerable toll on the health of individuals and there is the need to control the rate at which they spread, especially among adolescents who constitute an important segment of the population at risk.

Recommendations for the Control of STIs

The efforts to control sexually transmitted infections can be divided into those that attempt to prevent the acquisition of infections (primary prevention) and those that attempt to prevent the development of complications and interrupt the transmission from already infected individuals to sexual partners (secondary prevention) (Curran, et.al., 1980). Although, there is often an overlap between these two types of prevention efforts and successful primary or secondary prevention efforts may also accomplish the goal of tertiary prevention; attempting to minimise the effects of STI complications and their sequelae. While primary prevention efforts may originate from a variety of sources, secondary prevention, which relies heavily on diagnosis and therapy to accomplish its goals is largely the responsibility of health care providers and public health care programmes.

Whether primary, secondary or tertiary, the goals of any STI control programme include the following:

1. Reducing the incidence and prevalence of infections in the population
2. Reducing the population at risk, especially young people who are sexually active
3. Prevention of complications through early detection and treatment, and
4. Achieving modifications in the behaviours that put people at the risk of infections.

These can be achieved through various strategies such as reducing exposure to infection by health education and promotion of condoms, provision of adequate diagnostic and treatment facilities, limiting complications by early detection and

limiting further transmission by counselling and partner referral (Piot and Laga, 1991). In order to reduce the problem of sexually transmitted infections among adolescents, the following recommendations are proposed.

1. Setting up intervention programmes that aim at behaviour modifications

Since high rates of unprotected sexual activities occur among adolescents, it is necessary to focus on changing the behaviours that increases the risk of contracting infections. Thus, interventions to prevent the transmission of STIs through changes in sexual behaviour should be an integral part of any STI control programme. Interventions aimed at behaviour modification should encourage individuals to avoid behaviours likely to result in disease acquisition and transmission, identify infected individuals by screening for infection and ensure that therapies utilised for STI treatment are maximally effective.

The specific behaviours which are particularly important for young people include postponement of sexual debut, reduction in the number of sexual partners and consistent use of condoms in high risk sexual encounters, increasing ability and early recognition of risk and symptoms of STIs, among others. Thus young people need to be equipped with information necessary for them to recognise infections from their symptomatic manifestations.

2. Health Education as a strategy for reducing the spread of infections

Health education is also important to help individuals at risk identify themselves, to inform individuals of the risks associated with specific sexual practices and to facilitate making choices regarding behavioural changes to reduce the likelihood of infection. In addition, effective educational efforts will help individuals appreciate signs or symptoms of infection that might otherwise be overlooked. The explosion of information regarding HIV and AIDS and the rapidly increasing levels of knowledge about the disease among diverse population groups bear testimony to the

ability of programmes to educate large portions of the population. A more important question however is whether or not increases in knowledge translate into altered behaviour and therefore help to reduce rates of disease acquisition and transmission. This, clearly, is an area needing further research among adolescents in Nigeria and several countries of the developing world.

3. Identifying individuals already infected and those at risk

If infected individuals and others at risk are identified, it will greatly facilitate the control of how infections are spread in the population. To identify such individuals, the following measures could be adopted. These include screening of individuals considered to be at high risk for infections (for example, prostitutes and their clients), utilisation of the syndromic diagnosis approach which helps to determine the kinds of infections that are prevalent in the population and treatment for these infections. Similarly, it is important to promote health seeking behaviours which encourage early diagnosis and treatment among those who realise they are infected and encouraging infected individuals to notify their most recent sexual contacts so that individuals who are asymptomatic or mildly symptomatic infected individuals who might otherwise not seek care to do so.

In this regard, the issue of partner notification is an important one that can not be overemphasised as it has tremendous benefits as a method for the control of STIs. For example, asymptomatic infected individuals with curable bacterial STIs who may never have reached treatment can be identified and treated thereby preventing further transmission to new sexual partners (Curran, et.al.,1980; Potterat, et.al., 1983). Partner notification may be accomplished by direct referral of sex partners by infected individuals or through the mediation of health professionals trained to accomplish this task.

One of the major findings of this study is that adolescents' attitudes toward partner notification is still very poor and this has a lot of implications for the spread

of infections. Consequently, a major recommendation is that interventions should focus on educating the public about the potential benefits of partner notification and referral. Similarly, health personnel should be trained to obtain information about the most recent sexual partners so that they can initiate efforts to treat asymptomatic partners thereby reducing the rates at which infections spread. To date, there has not been any comprehensive research into the potential benefits of partner referral and so a reasonable amount of research could be devoted to this very important component of prevention efforts.

4. The role of public sector health care providers

The role of STI clinics in controlling the spread of infections should normally go beyond providing diagnosis and treatment for infected individuals. It is important that personnel with specialised training and ready access to diagnostic facilities are also available as these will make STIs clinics particularly efficient for accurate diagnosis and therapy as well as serve the needs of population in need of primary prevention to reduce their risk for subsequent STI acquisition. In addition, clinic attendance should provide the opportunity not only for counselling individuals on how to prevent the spread of STIs through behaviour change and condom use, but also, opportunities for initiation of efforts toward partner notification and treatment and for screening of other less apparent STIs that may be present alone or concomitant with other problems that brought the patient to the clinic.

It is also important to address the area of service provision in the treatment of infections. For example, it is necessary to address the perception, acceptability and utilisation of various outlets for the delivery of treatment services for STIs. How do young people feel about obtaining treatment for STIs in clinics which are also patronised by adult members of the community? How do women feel about obtaining care in categorical STI clinics and how do providers feel about young people coming to obtain treatment for STIs.

Although, STI clinics have the capacity to make important contributions to STI control efforts both for the individual and on a programmatic level, there are several shortcomings which may hinder their effectiveness in these areas. Such potential barriers include lack of funding , the social stigma that is often associated with STI clinic users which make attendance at such clinics become very embarrassing to persons who might benefit from utilisation of available services. The result is that some asymptomatic patients avoid visits to such facilities, missing opportunities for screening, while symptomatic patients sometimes prefer to seek care at other centres where there may be less expertise and inadequate equipment for diagnosis and treatment. Thus for any intervention or control programme, these factors must be taken into consideration in order to make STI clinics more effective in controlling the spread of infections.

5. The role of the private sector health care providers

Apart from clinic settings, STI control efforts also take place in a variety of other settings including the private sector, (e.g. traditional healers and drug vendors). The private sector has played significant roles in the care and management of infected individuals. The private sector often bears a major share of STI management/treatment and as evidence from the findings have shown, many infected individuals still turn to these sources for diagnosis and treatment when they are infected. Unfortunately, not much information is available on the extent of health care provided at this informal level and the effectiveness of the services provided. Reasons why people prefer this sector include cost, lack of privacy and confidence in the public health sector in general, health providers' attitudes and poor quality of public clinics. The common response of health professionals in the public sector has been to fight the informal sector, especially traditional healers. It may however be rewarding, given the continued patronage they have enjoyed from infected individuals, to explore the possibility of involving and training drug sellers and

traditional healers in STI diagnosis, treatment and counselling following the model of traditional birth attendants which has proved quite successful. This may be very useful especially in rural areas which lack basic health facilities for the diagnosis and treatment of infections.

Summary

The major task involved in the control of STIs is the definition and implementation of cost-effective control programmes that would work in resource poor settings with peculiar demographic, social and cultural profiles. Any control programme that has a potential for addressing the problems of disease must take into consideration the following factors (i) epidemiology of STIs, (ii) patterns of sexual behaviours, (iii) patterns of health care-seeking behaviours, (iv) the existing and planned health care services for STIs and (v) sociocultural factors that exert the most powerful influence on behaviour and determine the effective modes and channels of communication. An assessment of these factors in conjunction with clear understanding of the relative responsiveness of behaviours to interventions and the relative susceptibility of different STIs to interventions can help determine the priorities for particular target groups.

Concerning the epidemiology of STIs, if a specialised clinical service exists, it will become known which STI is more prevalent relative to other STIs in men or women. If known, priority should be given to promoting health care seeking behaviours and services that will lead to early diagnosis and treatment of such infections. Where there are no specialised clinical facilities, other medical personnel in related specialities can provide similar information. Similarly, the extent of treatment for STIs in pharmacies and other informal settings also need to be assessed.

Concerning the patterns of sexual behaviours, where specific sexual behaviour patterns among young people are known, they should be the target of behavioural intervention programmes. In almost every region of the world, health education

materials and STI prevention programmes that have been developed have focused only on identified core groups and adult members of the population and these materials have only been targeted at primarily preventing HIV infection. Apart from the fact that the materials available seldom address the issue of other equally devastating STIs, adolescents have been largely neglected in these intervention programmes, despite increasing evidence that point to them as a population at risk for STIs. Furthermore, the promotion of health care seeking behaviour for many curable STIs has not been a priority for programmes targeting young people. Rather, interventions have focused on the modification of sexual behaviours primarily for the prevention of pregnancy.

However, there are peculiar problems present in many developing countries which may pose a barrier to the goals of prevention and control of STIs. Among these, as suggested by Holmes and Aral (1991) are the explosive growth in the population of many developing countries of the world, especially in Africa, the only region of the world where fertility rates have not declined in the last 20 years. The pattern of demographic transition has been suggested as the single most important factor fuelling the spread of STIs (Holmes and Aral, 1991). The youthful age structure not only means a large population of sexually active persons which are at risk for disease acquisition, age specific rates of STIs may also be accountable to this reason. The increasing proportion of the population belonging to this group together with the removal of the restraining influence of older members of the population leads to increasing interaction and opportunities for sexual unions among young people. The absolute and relative increase in youthful populations leads to overburdening of the public health facilities for STIs and other youth oriented facilities.

Finally the formation of rural-urban migration of young people in response to population pressure clearly has an additional effect on increasing rates of STIs (Pan-American Health Association, United Nations, 1966). Other factors include

economic underdevelopment, low literacy levels, women's low status and gender differences in need, access and utilisation of health services with the result that the morbidity caused by STIs is greater for women than men. Thus, any intervention programme must take account of these peculiar circumstances.

It is important to mention that the task of controlling the spread of STIs is an urgent one given that certain STIs facilitate the transmission of HIV. If the foregoing are given serious consideration, they will go a long way in curbing the menace of sexually transmitted infections among the population sub group considered an asset to the development of any nation.

BIBLIOGRAPHY

Achalu, E.I. (1993): AIDS and Sexually Transmitted Diseases.

Adekunle, A.O and Ladipo O.O, (1992): Reproductive tract infections in Nigeria: challenges for a fragile health infrastructure." In Adrienne Germain, King K. Holmes, Peter Piot and Judith Wasserheit (eds) Reproductive Tract Infections: Global impact and priorities for women's reproductive health. New York and London. Plenum Press. pp.297-316.

Adetoro, O.O. (1986): Septic induced abortion in Ilorin, Nigeria: an increasing Gyneacological problem in developing countries. Asia-Ocenia Journal of obstetrics and gyneacology, 12(2): 201-205.

_____**and Agah, A. (1988):** "The implications of childbearing in postpubertal girls in Sokoto, Nigeria." International Journal of Gyneacology and Obstetrics, 23 (1):73-77.

_____**, A.B. Babarinsa and O.S. Shotiloye (1991):** Social Cultural Factors in Adolescent Sceptic Illict Abortions in Ilorin Nigeria. African Journal of Medicine and Medical Sciences. 20(2):149-53

Aggrawal, V.P. and Mati, J.K.G. (1982): Epidemiology of induced abortion in Nairobi, Kenya. Journal of Obstetrics and Gyneacology of Eastern Central Africa, 1: 54-57.

Adinma and Okeke, (1993): Contraception Awareness and Practice amongst Nigerian Tertiary School Girls. West Afrrican Journal of Medicine, Jan-Mar., 14 (1) 34-38

Alausa, O and Osoba, A.O,: (1978): Sexually Transmitted Diseases in Ibadan, Nigeria. British Journal of Venereal Diseases, Jun. 53 (3) :155-160

_____**(1978):** The role of STD in male infertility in Tropical Africa. Nigerian Medical Journal, 8 (3): 225-229

Alexander, C.S., M.E. Ensminger, Y.J. Kim, B.J. Smith K.E. Johnson and L.J Dolan, (1989): Early Sexual Activity Among Adolescents in Small Towns and Rural Areas: Race and Gender Patterns. Family Planning Perspectives, Vol.21 (6), Nov/Dec . p.261-266.

Amaro, H. and I. Gourneman, (1991): Health care utilisation for STDs: Influence of patient and provider characteristics. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C.

Anderson, R.M. (1988): "Possible Demographic Impact of AIDS in Developing Countries". Nature 332 March, p.228

Aral, S.O., R. Fullilove, R. Coutinho and J. Van Den Hoek, (1991): Demographic and Societal factors influencing risk behaviours. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C.

_____**and King Holmes (1990):** Epidemiology of sexual behaviour and STD p.19-44. In K.K. Holmes, P.A Mardh, P.F. Sparling, P.J. Weisner, W. Cates, Jr., S.M. Lenon and W.E. Stamm (eds) Sexually Transmitted Diseases. McGraw Hill Books Co., New York

Arya, O.P. (1973): Clinical, cultural and demographic aspects of gonorrhoea in a rural community in Uganda. Bulletin of the World Helath Organzation, 49 587-595.

Association for Reproductive and Family Health(1995-1996): Ongoing baseline documentation for the Ibadan Adolescent Reproductive Health Project.

Baker, G.K. and S. Rich,(1992): "Influences on adolescent sexuality in Nigeria and Kenya: Findings from recent focus group discussions". Studies in Family Planning. 23(3): 199-210.

Barrasso, R., J. De Brux, O. Croissant and G. Orth,(1987): High prevalence of papilomavirus associated penile intraepithelial neoplasia in sexual pattern of women with cervical intraepithelial neoplasia. New England Journal of Medicine, 310: 916-923

Blum, R.,(1991): Global Trends in Adolescent Health, Journal of the America Medical Association, May 22nd-29th, Vol. 265 No. 2.

Blumer, H. (1969): Symbolic Interactionism: Perspectives and Method. Prentice Hall Engelwood Cliffs, New Jesrsey.

Bongarrts, J. (1995): "Modelling the spread of HIV and its Demographic Impact of AIDS in Africa" Centre for Policy Studies Working Paper NO.5, New-York : The Population Council

Bostwana, YWCA and WHO/GPA: (1992): Joint research project on Assessment of Peer Education, Report of the baseline assessment findings.

Boyles, (1995): "Sexually Transmitted Diseases Treatement reduces HIV in rural Tanzania". AIDSWeekly, Oct. 9: 12-13

Brandt, A. (1987): "No magic bullet". Oxford University Press, New York.

Brunharm, R.C., and Allan Ronald (1991): Epidemiology of Sexually Transmitted Infections in developing countries. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C.

Burst, E. (1979): Adolescent pregnancies and problems. Journal of Nurse Midwifery, Mar-Apr, 24 (2): 19-24

Campion, M.J., A. Singer, P.K. Clarkson and D.J. CoCane, (1985): Increased risks of cervical neoplasia in cohorts of men with penile condylomata acuminata. Lancet ii .943-946

Carael, M., Van de Perre; Akygeneye and others. (1985): Socio-Cultural Factors in relation to HTLV-III/LAV Transmission in Urban Areas in Central Africa. Abstract 05.1. Brussel. First International Symposium on AIDS in Africa

____ , (1993): "Women Vulnerability to STD/HIV in sub-Saharan Africa: An Increasing Evidence". Paper presented at the IUSSP Seminar on Women and Demographic Change in sub-Saharan Africa, Dakar, Senegal, March 3rd-6th.

Catallan, J., M. Bradley, J. Gallmey and K. Hawton, (1981): Sexual dysfunction and psychiatry morbidity in patients attending a clinic for STDs. British Journal of Psychiatry 138: 292-296.

Cates, W.Jr., and A. Meheus, (1990): Strategies for development of STD control programmes. p.1023-1030. In K.K. Holmes, P.A Mardh, P.F. Sparling, P.J. Weisner, W. Cates, Jr., S.M. Lenon and W.E. Stamm (eds) Sexually Transmitted Diseases. McGraw Hill Books Co., New York

_____ (1991): "Teenagers and Sexual Risk Taking: The best of times and the worst of times". Journal of Adolescent Health, 12: pp.84-94.

_____and Stone K., (1992) : "Family Planning: The responsibility to prevent both pregnancy and Reproductive Tract Infections" In Adrienne Germain, King K. Holmes, Peter Piot and Judith Wasserheit (eds) Reproductive Tract Infections: Global impact and priorities for women's reproductive health. New York and London. Plenum Press. pp.93-129.

Centers for Disease Control, (1991): Premarital sexual expereince among adolescent women in the United States 1970-1988. In Morbidity and Mortality Weekly Report 39: 929-932

Chandra, Mouli (1992) : All against AIDS. CHEP, Zambia in Strategies for Hope No. 7 (AMREF, Nairobi, Kenya) June.

Chin, J., (1990) : "Current and Future Dimensions of the HIV/AIDS Epidemic in women and children". Lancet 336: pp. 221-224.

Cohen, P.S., (1968): Modern Social Theory. Heinemann, London.

Collet, M., Reniers, J., Frost, E., Gass, R,. Yvert, F., Lesters, A., Roth-Meyer, C., Ivanoff, B. , Meheus, A., (1988): Infertility in Central Africa: infection is the cause. International Journal of Gyneacology and Obstetrics, *26:* 423-428.

Creastas, G., (1995): Adolescent Gyneacology and Obstetrics (editorial) European Journal of Obstetrics, Gyneacology and Reproductive Biology, Feb. 58 (2):107-109

_____(1995): Sequelae of premature sexual life. Journal of the Royal Society of Medicine, July 88 (7):369-371

Curran, J.W., M.V. Schrader, J.K. Meyer, M.A. Krammer. J.G. Lossik and W.E. Brown, (1980): Gonorrhoea in the emergency department management: Case follow up and contact tracing of cases in women. American Journal of Obst. and Gyn. 138:1105-1108.

Daly,C.C., Magura, N., Mati, J.K., Solomon, M., Mbugua, S., Tukei, P.M., Hunter, D.J.,(1994): Risk factors for gonorrhoea, syphilis and trichomoniasis among women attending FP clinics in Nairobi, Kenya. Geritourinary Medicine, 1994, Jun; 70 (3) 155-61

Dare, O.O and Clelland, J.G. (1994) : Reliability and Validity of survey Data on Sexual Behaviour. Health Transition Reveiw Supplement, 93-110

Demographic and Health Surveys Report, (1992): Adolescent women in sub-Saharan Africa, A Chartbook on Marriage and Child Bearing.

De Schryver, A. and Meheus, A. (1990): Epidemiology of Sexually Transimitted Diseases: The Global Picture. Bulletin of the World Health Organization. 68 (5):631-654. 1990

Des Jarlias, D.C. and Carballo,M. (1993): HIV and injecting drug use,. AIDS and Society 4: 2 1993

Di-Clemete, R.J, Zorn, Temoshok, L.(1986): Adolescent and AIDS: A survey of Knowledge, beliefs and attitudes about AIDS in San-Francisco. American Journal of Public Health 76, pp.1443-1445, 1986.

Drob, S. and H.S. Bernard, (1968): Time limited group treatment of genital herpes patients. Int. Journal of Group Psychother, 36: 133-144.

Edmund and Paxman,(1984): Early pregnancies and childbearing in Guatemala, Brazil, Nigeria and Indonesia: addressing the consequences. Chestnut Hill, Mass. Pathfinder Fund. 20p Pathpaper no. 11.

Ehrhardt and Wasseheit J., (1991): Age, gender and sexual risk behaviours for Sexually Transmitted Diseases in the United States. In Wasserheit, J.N., Sevgi O. Aral and King K. Holmes (eds) Reaserch Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. American Society for Microbiology, Washington, D.C

Egger,E., Fennie, J., Gorter, A., Gonsalez, S., Guttierez, R., Pauva, J., Davey-Smith, G., (1993): HIV/AIDS-related Knowledge, attitudes and practices among Manguan secondary school students. Bullentin of the Pan-American Health Organisation, 27 (4): 360-369

Ericksen, K., (1964): Childhood and Society. New-York, Norton.

Elias, C. (1991): Sexually Transmitted Diseases and the Reproductive Health of Women in Developing Countries. Programs Division Working Paper N0. 5, The Population Council, New-York.

_____; **Heise, L (1993):** "The Development of Microbicides: A new method of HIV prevention for women". Programs Division Working Paper No. 6, New-York, The Population Council.

Federal Office of Statistics and IRD Macro International Inc., (1990): Nigerian Demographic and Health Survey.

Federal University of Bahia, (1988): Saude e educacao do jovem [The health and education of young people] Salvador.

Feyisetan, B and Pebley, A.R. (1989): "Premarital Sexual Activity in Urban Nigeria". Studies in Family Planning, 20 (6) : pp.343-353.

Feyisetan, B.J., Bankole, M., (1991): Mate selection and fertility in urban Nigeria. Journal of Comparative Family Planning Studies. Autum: 22 (3):273-292

_____**(1992):** Findings from focus group discussions with Youth in Ile-Ife, Nigeria.[Unpublished]

Fitzpatrick, R., G. Ikos and D. Frost, (1985): The recognition of psychological disturbances in a STD clinic. Int. Journal of Social Psychiatry, 31: 306-312

Fortenberry, J.D., (1995): Pre-intervention Research: Why and how do people seek care for STDs? [Unpublished]. Presented at the annual meeting of the Population Association of America, San-Franscisco, Claifornia. Apr.6-8, 18 (1)p.

Friedman, H.L.(1989) : The health of adolescents: beliefs and behaviour. Social Science and Medicine, 29(3): 309-315 1989

Global Program on AIDS (1992): "Current and Future Dimensions of the HIV/AIDS Pandemic". Document WHO/GPA/RES/SFI/92.1

Goldberg, Thomson A., Green, S.T., Emsile, J.A., Kennedy, D.H., (1989): Prevalence of prostitution among female HIV positive injection drug users in Glasgow and the establishment of a health care drop in centre [abstract]. In International Conference on AIDS: The scientifc and Social Challenge. Montreal, Quebec, Canadda. Jn. 4-9.

Goldmeier, D. and A. Johnson, (1982): Does psychiatric illness affect the recurrence rate of genital herpes?. British Journal of Venereal Diseases, 58: 40-43

Green, L.W., (1979): Educational Strategies to improve compliance with therapeutic and preventive regimens: the recent evidence. p.157-173. In R.B. Haynes, D. Sackett and W. Taylor (eds) Compliance in the Health Care. The Johns Hopkins University Press, Baltimore.

Gyepi-Garbrah, B. (1985): Adolescent Fertility in Nigeria. The Pathfinder Fund, Boston.

Hayes,C.D., (1987): Risking the future: Adolescent sexuality, pregnancy and childbeaaring. Vol.I. Washington D.C. National Academy Press, xiv, 337 p.

Henshaw, S; Gietze, E, (1986): Induced Abortion: A World Reveiw, New-York, The Allan Guttmacher Institute.

Hook, E. III, (1991): Approaches to STD control in North America and Western Europe. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C.

Holmes, K. and S. Aral, (1991): Behavioural interventions in developing countries. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C.

Howard, N. (1988): "Postponing Sexual Involvement among Adolescents". Journal of Adolescent HealthCare, 6. pp. 271-277, 1988.

Imoagene, S.O., (1968) "Urban Involvment and Rural Detachment". NJESS, 10,3, 397-411.

Institute of Medicine and National Academy of Science (1986): "Confronting AIDS: Directions for Public Health, Healthcare and Research". Washinton D.C., National Academy Press.

Isiugo-Abanihe, U.C. (1993): "Sexual Behaviour of the Marrieds: Coital Frequency, Extramarital Relations and the risk of AIDS in Urban Nigeria". Paper presented at the conference of the UAPS, Dakar, Senegal, November 8th-13th.

Jesor, R. and Jessor, S.L. (1977): Problem behaviour and psychological development. New York, Academic Press.

Kane, F. (1993): "Sexual Activity, Family Life Education and Contraceptive Practice among Young Adults in Banjul, The Gambia". Studies in Family Planning, 24, No.1. January/Februarary.

Khanna, J., Van Look, P.F.A., and Griffin, P.D. (1992): "Reproductive Health: A key to a brighter future". Biennial Report, 1990-1991. Geneva, World Health Organisation, 171 p.

Khan, A.R; Johann, F.A. Begun, S.F (1986): "Maternal Mortality in Rural Bangladesh" in Studies inFamily Planning. 17, pp.7-12, 1986.

Kinsey, A.C., W. B. Pomeroy and C.E. Martin, (1948): Sexual behaviour in the Human male. The W.B. Sanders and Co., Philadelphia.

Kiragu, K., (1991): "Factors associated with sexual and contraceptive behaviour among school adolescents in Kenya". The 1989 Makun district Adolescent Fertility Survey. Final Report [unpublished] Aug. 4, 34 p.

_____**(1991):** "The correlates of sexual and contraceptive behaviour among In-school adolescents in Kenya". Ann Arbour, Michigan. University Microfilms International.

Kost, K and Forrest J.D. (1992): "American Women Sexual Behaviour and Exposure to the risk of Sexually Transmitted Diseases". Family Planning Perspectives. 24: pp.244-254.

Ladipo, O.A (1983): "Sexual Behaviour, Contraceptive Practice and Reproductive Health among Young Unmarried Population in Ibadan, Nigeria". Family Health International, North Carolina.

Latif, L.,(1992): Sexually Transmitted Diseases diagnosis and treatment. AIDS Action, Sep.-Nov. (26):3

Lande, R., (1993): "Controlling Sexually Transmitted Diseases". Population Reports Series L. Issues in World Health. Jun. (9): 1-3. Reproductive Health Training Materials

Lema, V.M (1990): "The determinant of Sexuality among Adolescent Schoolgirls in Kenya". East African Medical Journal. Vol. 67. No.3, pp. 191-200.

Liskin, L., N. Kaka, A.H. Ruthledge, L.C. Smith and L. Stewart, (1989): Youth in the 1980s: Social and Health Concerns. Population Reports, Series M, No.9. Baltimore, Maryland: Johhs Hopkins University. Nov.-Dec. (9): -349-M-388.

Locko-Mafonta, C. (1986): L'avortement clandestin a Brazaville. [Clandestein abortion in Brazaville]. Medicine d'Afrique noire, 33 (3): 199-214.

Magura, S.J., Grossman, D., S. Lipton, K.K. Amann, J. Koyu and K. Gehan (1989): Correlates of particpation in AIDS education and HIV antibody testing by methadone patients. Public Health Reports 104: (2) 174-179

Macieira, M. anmd Nettesheim, C., (1994): "It won't happen to me". STDs and Adolescents. MOTHERCARE MATTERS Oct.-Nov; 4 (3): 6-8

Makinwa-Adebusoye, P.K. (1992): "Sexual Behaviour, Reproductive Knowledge and Contraceptive Use among Young Urban Nigerians". International Family Planning Perspectives, Vol. 18 No. 2, pp.66-70.

_____, **(1997):** Youth and Reproductive Health in Africa: An Assessment of Adolescent Reproductive Health in Nigeria. The Centre for Development and Population Activities (CEDPA) and the United Nations Population Fund (UNFPA).

Mary Ann-Shafer (1988): "High risk behavior during Adolescence". AIDS in Children, Adolescents and Heterosexual Adults.

McCoy, M.,(1995): Active Sexually Transmitted Diseases at a rural community clinic in Kwazulu. South African Medical Journal. 1995 Jan. 85 (1): 57

Meekers,D., (1993): Education and Adolescent fertility in sub-Saharan Africa. University Park, Pennsylvania. Pennsylvania State University. Population Research Institute. Feb (3) 57. Working paper no.5.

_____**(1993):** Sexual initiation and premarital childd bearing in sub-Saharan Africa. Columbia, Maryland, Macro International. Aug. 3, 26 DHS working paper no.5

Meheus,A. and Peter Piot (1986): Provision of services for STDs in developing countries. p261-272. In J.D. Oriel and J.W.R. Harris (ed) Recent advances in STDs. Churchill Livingstone Ltd. Edingburh.

Mennel, S.(1974): Sociological Theory: Uses and Unities, Willmer Brothers Ltd, Birkenhead, England.

Melton, G.B.(1988): Adolescent and Prevention of AIDS. Professional Psychology Research and Practice. Vol.19 No.4, pp.403-408, 1988.

Merton, R. (1968): Social Theory and Social Structure. Homewood III. Dorsey Press

Meyer-Bhalburg, H.F.L., (1980): Sexuality in early adolescence, p.61-82. In B.B. Wolman and J. Money (eds) Handbook of Human Sexuality. Prentice Hall Inc. Engelwood Cliffs. N.J.

Moran. J.S., R. Harlan, T.A. Peterman and K.M. Stone,(1990): Increase in condom sales following AIDS education and publicity in the United States. American Journal of Public Health 80: 607-608.

Nathan, P.E. (1985): Prevention of Alcoholism. In Rosen J.C. and Solomon, L.J. (ed). Prevention in Health Psychology. University Press of New England Hanover, N.H.(Primary Prevention of Psychopathology Series, No. 8).1985

Nicholas, B; Ladipo, O.A; Paxman, J.M and Otolorin, E.O (1986): "Sexual Behaviour, Contraceptive practice and Reproductive Health among Nigerian Adolescents". Studies in Family Planning, Vol. 17, No.2, pp. 100-106.

F.O.S/Macro International, (1990): Nigerian Demographic and Health Survey

Oberai, A.S. (1987): Migration, urbanisation and development. Geneva, International Labour Office. (Paper No.5 of background papers for training in population, human resources and development planning).

Okonofua, F.E. (1995): Factors associated with adolescent pregnancies in rural Nigeria. Journal of Youth and Adolescence. Aug. 24 (4):419-438

Ogbuagu, S.C. and J.O. Charles (1993): "Survey of Sexual Networking in Calabar." Health Transition Review. Supplement to Vol.3: 105-119

Oloko, B.A; Omoboye, A.O (1993): "Sexual Networking among some Lagos State Adolescent Yoruba Students". In Caldwell, et.al. (eds.) Sexual Networking and HIV/AIDS in West Africa, Health Transition Review, supplement to Vol.3, Canberra: The Australian National University.

Omorodion, F. (1993): "Sexual Networking among Market Women in Benin City, Bendel State, Nigeria". Health Transition Review. Supplement to Volume 3: 159-169.

Omu, A.E., oronsaye, A.U., Faal, M.K. and Asuquo, E.E.,(1981), " Adolescents induced abortion in Benin-City." Journal of Gyneacology and Obstetrics. Vol. 19: (6)495-499. 1991.

Onwuamanam, D.O (1982): "Sexual Activity of School going Adolescents in Nigeria". Adolescence, Vol.17, pp.81-87.

Orubuloye, I.O.(1993): "Women's Control over their Sexuality: Implications for STD and HIV/AIDS in Nigeria". Paper presented at the IUSSP Seminar on Women and Demographic Change in sub-Saharan Africa, Dakar, Senegal. March 3rd-6th.

_____ **(1991):** "Sexual Networking in the Ekiti District of Nigeria". Studies in Family Planning, Vol.22, No.2, pp.61-73, March/April.

_____**Pat Caldwell and John Caldwell, (1991) :** "Sexual Networking in the Ekiti District of Nigeria." Studies inFamily Planning. 22: 61-73.

_____ **(1990):** "Sexual Networking and the Risk of AIDS in Southwest Nigeria" In Tim Dyson (eds). Sexual Behaviour and Networking: Anthropological and Socio-cultural Studies on the Transmission of HIV. pp. 328-302, Liege Ordina Editions.

Osoba,O., and Onifade, O.A., (1973): Venereal Diseases among pregnant women in Nigeria. West Afrcian Medical Journal, Feb. 22 (1): 23-25.

Ososanya, O. and Brieger, W. (1994): Rural/Urban mobility in southwesterrn Nigeria: Implications for HIV/AIDS Transmission from urban to rural communities. Health Education Research. Dec. 9 (4): 507-518

Over, O. and Piot,P.,(1991): HIV infections and Sexually Transmitted Infections. Washington D.C. World Bank. Population Health and Nutrition Division. Population and Human Resources Department. Apr. (5):85[41] Health Sector Priorities Reveiw HSPR-26.

Oyeneye, O.Y. and Shina Kawonise(1993): " Sexual Netwroking in Ijebu-Ode, Nigeria: An exploratory study". Health Trasition Review. Supplement ot Vol.3: 171-183.

Ozumba and Amaechi (1992): Awareness and practces of contraception among female students at the Institute of Management and Technology, Enugu. Public Helath, Nov. 106 (6):457-463

Padian, N., S. Shibosky and W. Jewell (1990): The effect of the number of exposures on the risk of heterosexual HIV transmission. Journal of Infectous Diseases. 161:883-888.

Pan American Health Organisation-United Nations,(1966): Demographic Yearbook. Issue 36, Pan American Health Organisation, Washington D.C.

Parsons, Talcott, (1937): The Structure of Social Action. McGraw Hill, New-York.

Paxman,J.M, and Zuckerman, R.J.(1986): Laws and Policies Affecting Adolescents Health. World Health Organization, Geneva.

Pepin, J., F.A. Plummer, R.C. Brunharm. P. Piot. D.E. Cameron and A.R. Ronald, (1989): The interaction of HIV and other STDs: an opportunity for intervention. AIDS 3: 3-9

Piaget, J. (1972): Intellectual evolution from adolescence to adulthood. Human Development, 15:1-12 1972.

Pick de Wiess and others (1991): "Sex, Contraception and Pregnancy among Adolescents in Mexico. Studies in Family Planning, Vol.22, No.2, pp.74-82, March/April.

Piot. P, Plumer, F.A.,Rey, M.A, Ngugi, E.N., Rouzioux, C., Ndinya-Achola, J.O., Veracauteren, G., D'Coasta, L.J., Laga, M., and Nsanze, H., (1987): Retrospective Seroepidemiological of AIDS Virus Infections in Nairobi Populations". Journal of Infectious Diseases, Vol 155, No.6, pp.1108-1112.

_____ **and Marie Laga,(1991):** Current approaches to STD control in developing countries. In Judith Wasserheit, Sevgi Aral and King Holmes (eds) Research Issues in Human Behaviour and Sexually Transmitted Diseases in the AIDS era. The American Society of Microbiology, Washington D.C

_____, **R. Ryder, J.Peniens, M. Temmerman, I.O. Heyward and J.M Curran, (1990):** The global epidemiology of HIV infection: Continuity, Heterogeneity and Change. Journal of Acquired Immune Deficiency Syndrome, 3:403-412

Pilkington, C.J., W. Keru and D. Indest, (1994): Is safer sex necessary with a safe partner? Condom use and romanttic feelings. Journal of Sex Research, 31 (3):203-210

Population Reference Bureau(1992): State of the World's Children.

Potterat, J.J., D.E. Woodhouse, C.I. Pratts, G.S. Markenrich and J.S. Fogle, (1983): Women contacts of men with gonorrhoea: Case finding yields. Sexually Transmitted Diseases 10: 29-36

Resnick, M.; Leer, L.; et.al(1989): "The State of Adolescent Health in Minnesota". Minneapolis University, Minnesotal.

Rex, J. (1961): Key Problems of Sociological Theory, Routhledge and Kegan Paul Ltd. London.

Ross, M.W.,(1987): Illness behaviour among patients attending a sexually transmitted diseases clinic. Sexually Transmitted Diseases, 14: 174-179

Rowe, R., (1994): Sexually Transmitted Infections: A challenge to reproductive health. In J. Khanna, P.F.A. Van Look and P.D. Griffin (eds) Challenges in Reproductive Health Research. Biennial Report 1992-1993 Geneva, Switzerland. World Health Organisation Special Programme of Research, Development and Research Training in Human Reproduction

Russel, J.K.(1988): Early teenage pregnancy. Maternal and child health, February.

Rutter, M. (1979): Changing youth in a changing society: patterns of adolescent development and disorder. Abingdon, Nuffield Provincial Hospitals Trust.

_____(1980): Psychosocial development, p.332-339. In M. Rutter (ed) Scientific Foundations of Developmental Psychiatry. Heinemann Medical, London

Safe Motherhood Newsletter, 1994

Shultz, Alfred, (1972): The phenemology of the Social World. Translated by G. Walsh and F. Lehnert. Heinemann Books, London.

Simmosen, S.L. et.al.(1988): "Human Immunodeficiecy Virus in Men with Sexually Transmitted Diseases. New England Journal of Medicine, Vol.319, No.5, pp.274-278.

Society for Family Health (1996): "Report of Focus Group Discussions among Adolescents in Nigeria". Reproductive Health of Nigerian Adolescents: Knowledge, attitudes and practice study.

Solomon, M.Z. and Dejong, W., (1988): Preventing AIDS and other sexually transmitted diseases through condom promotion: a patient education intervention. American Journal of Public Health, 80: 607-608.

Stone, J. and R.Church, (1973): Childhood and Adolescence: A psychology of the growing person. Forth edition. Random House, New York.

Tanner, J.M., (1982): Growth of Adolescents. Blackwell Sceintific Publications, Oxford.

The Allan Guttmacher Institute (1979): "Teenage Preganancy: The problem hasn't gone away". Readings on Teenage Pregnancy. New-York.

The Population Council (1993): AidsCaptions. December.

Tietse,C. and Henshaw, S.K.(1986): Induced abortion: a world review, 1986, 6th ed. New York, Allan Guttmacher Institute.

._____**Lewit, S.(1972):** Joint Programme for the Study of Abortion: Early Medical Complications of Legal Abortions. Studies in Family Planning, 3(6):97-122.

Tshibangu, K. et.al(1984): Avortement clandestin, problem de sante publique a Kinshasa. Journal of Gyneacology, Obstetrics and Biological Reproduction, 13: 759-763.

United Nations(1986): Selected Demographic and Social Characteristics of the Worlds' Children and Youths (ST/ESA/SER.R/60); United Nations, New York.

United Nations(1988): World Demographic Estimates and Projections , 1950-2025. New-York.

United Nations(1989): Global Estimates and Projections of Population by Sex and Age: the 1988 Revision. New-York.

United Nations(1989): Prospects of World Organization .(Populations Studies No.112), United Nations New York.

United Nations(1994): The Sex and Age Distribution of the World's Population: A 1994. Revision.

Van de Perre, P.H., Lepage, P., Batungwanayo, J., Bonnet, D., Chumeck, N., Careal, M., Nzabihima, E., Robert-Guroff, M., De Mol, P., Freyens. P., Butler, J.P., Gallo, R.C., and Kanyamupira, J.B. (1988): "HIV Transmission among Heterosexual Couples in Central Africa". AIDS Vol.2, pp.201-205.

_____ **and others (1985):** "Female Prostitute: A risk group for Infection with HTLV-III". Lancet. September 7, pp.524-526.

Wallace,R.(1988): A synergism of plagues: "Planned Shrinkage". Contagious housing destruction and AIDS in the Bronx. Journal of Environmental Research, 47: 1

Warriner, Charles K. (1970): The Emergency of Society. Homewood III. Dorsey Press.

Wasserheit, J.N. (1989): The significance and scope of Reproductive Tract Infections among third world women. Int. Journal of Gyneacology and Obstetrics Supplement 3: 145-168.

Weber, Max (1930): The Protestant Ethic and the Spirit of Capitalism, trans. by Talcott Parsons. George Allen and Unwin, London.

_____, (1938): Economy and Society, 3 vols. Bedminster Press, New-York.

Westrom, L. and Mardh, P.A.(1978): Pelvic inflammatory disease. Epidemiology, diagnosis, clinical manifestations and sequelae. Geneva, World Health Organzation.

Woods, et.al. (1985): Reproductive health knowledge, sexual behaviour and contraceptive practice among the adolescent population in Monrovia, Liberia. Durham, NC, Family Health International.

Women Development Group (1995): Adolescent Reproductive Morbidity in Southeast Nigeria. Women Development Group, University of Portharcourt, Nigeria.

World Health Organisation (1975): Technical Report Series, No.583 (Pregnancy and Abortion in Adolescence: Report of a WHO meeting).

World Health Organisation (1986): Technical Report Series, No.731(Young People's Health-a challenge for society: report of a WHO Study Group on Young People and "Health for all by the Year 2000").

World Health Organisation Press Release: WHO/9, February 12, 1992.

World Health Organisation (1993): The Health of Young People: A challenge and a promise. Geneva, Switzerland.

Wrong, Dennis, (1961): The oversocialised conception of man in modern sociology. American Sociological Review, 26 (2): 183-193.

Wyneendaele, Bomba, W., M'Manga, N., Bhart, S., and Fransen, L., (1995) : Impact of counselling on safer sex and STD occurrence among STD patients in Malawi. Int. Journal of STD and AIDS, Mar-Apr., 6 (2): 185-189

Zelnick, M. (1977): "Sexual and Contraceptive Experience of Young Unmarried women in the United States". Family Planning Perspectives, Vol.9, pp. 51-71.

_____ **and Kanter, K.F. (1977):** Sexual and contraceptive experience of young people and unmarrried women in the United States, 1970-1977. Family Planning Perspectives. Mar.-Apr., 9 (2) 55-77

_____, **Kim, Y.J., and Kanter, K.F. (1979):** Probabilities of intercourse and conception among US teenage women, 1971 and 1976. Family Planning Perspectives May-Jun. 11 (3): 177-183

APPENDIX I

SEXUALLY TRANSMITTED INFECTIONS:
Prevalence, Behavioral Patterns and Coping Strategies Among Adoloescents in Oyo State, Nigeria.

Individual Questionnaire

Dear Respondent,

We are conducting a study on the problems of Adolescent Sexual Behavior with particular emphasis on Sexually Transmitted Infections and it's attendant consequences among young people in this community. The questions you are required to answer below is strictly for research purposes alone. Please feel free to answer as honestly as you can and whatever information you give will be treated with utmost confidentiality. Thank You.

PART ONE: ***Respondent's Background Information.***

1. Sex: Male.....1.
   Female.....2.

2. How old were you on your last birthday _____years

3. In what month and year were you born? D___ M____ Y___

4. Marital Status: Never Married.....1.
   Married.....2.
   Cohabiting.....3.
   Divorced.....4.
   Widowed.....5.

5. Which is your ethnic group?
   Hausa.....1.
   Igbo.....2.
   Yoruba.....3.
   Other(Specify_____).....4.

6. What is your state of origin? _____

7. What is your religion? Christian.....1
   Islam.....2
   Traditional.....3
   Other(Specify_____).....4
   None.....5

8. Have you ever attended school? Yes.....1.
   No.....2 (go to Q. 10)

9. What is the highest Educational qualification obtained?
   Koranic school.....1
   Primary incomplete.....2
   Primary complete.....3
   Secondary incomplete.....4
   Secondary complete.....5
   Higher.....6
   Other(specify_____).....7

10. Are you currently employed? Yes.....1
No.....2 (if no, go to Q. 12)

11. If yes, what is your main activity? _____

12. Parents age last birthday Father_____years
Mother_____years

13. Parents occupation and Annual income
Father_____ N_____
Mother_____ N_____

14. Parents highest educational qualification?

	Father	Mother
Koranic	[ ]	[ ]
Primary incomplete	[ ]	[ ]
Primary complete	[ ]	[ ]
Secondary incomplete	[ ]	[ ]
Secondary complete	[ ]	[ ]
Higher	[ ]	[ ]
Other(specify_____)	[ ]	[ ]

15. How many brothers and sisters do you have from the same

	Father	Mother
Brothers	___	___
Sisters	___	___

16. Are both parents alive? Yes.....1
No.....2 (go to Q. 19)

17. Are both parents living together? Yes.....1 (go to Q. 19)
No.....2

18. Why are they not living together? Death.....1
Divorced.....2
Work.....3

19. With whom are you currently living? Both parents.....1
Mother only.....2
Father only.....3
Older sibling.....4
Family Relations.....5
Alone.....6

With Friends.....7
Other(specify_____)..8

20. Which of the following best describes the family you live in?
Monogamy- Father, Mother, siblings and other family relations..... .1
Polygamy- Father, Mother, other wives, siblings and other family relations...2

21. For how long have you been living as such?
Less than 10 years.....1
10-15 years.....2
16-20 years.....3
above 20 years.....4

22. Why are you living as such?
Death of father.....1
Death of mother.....2
Death of both parents.....3
Access to opportunities.....4
Other(specify_____).....5

23. How would you describe those with whom you grew up?
Very Strict.....1
Quite permissive.....2
Carefree.....3

23b. Do you feel free to discuss any issue bothering you with them?
Yes.....1
No.....2

23c. With whom do you normally discuss personal problems?
Parents.....1
Older brother/sister...2
Any older person.....3
My close friends.....4
Other(specify____).....5

24a. Do you receive any money?
Yes.....1
No.....2 (go to 24c.)

24b. If yes, how much do you receive on the average?
Daily: N_____
Weekly: N_____
Monthly :N_____ (go to 25)

24c. If no, how do you sustain yourself ?_____
_____

25. Do you usually listen to a radio or watch television at least once a week?

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

PART TWO: ***Marriage and Reproduction***

1. Are you currently married ? Yes.....1
No.....2 (go to Q. 14)

2. What was your age at first marriage ? _____years

3. What type of marriage do you have ? Customary.....1
Church/Mosque.....2
Civil/Legal.....3
Consensual.....4

4. Are you the only wife ? Yes.....1(go to Q. 7)
No.....2

5. If no, how many wives does your husband have ? _____

6. What is your position among your husband's wives ?
First wife.....1
Second.....2
Third or other.....3

7. For how long have you been married ? _____(state in years)

8. Did you choose your husband or somebody choose him for you ?
Yes.....1 (go to Q. 10)
No.....2

9. If no, who chose him ? _____

10. You may be aware that there is a National Population Policy which has advised that girls marry at age 18, please tell me why you married at age_____ (stated in Q.2)_____
_____

11. How old is your husband? _____years

12. What is the highest educational qualification your husband attained ? _____(see list in Q. 9, part 1)

13. What is your husband's occupation ? _____and annual income N_____

14. What do you consider the ideal age for **girls** to marry?_____years

15. What do you consider the ideal age for **boys** ?_____years

16. Do you think a boy/girl should remain a virgin untill marriage?
Yes.....1
No.....2

16b. Please give a reason for your answer _____
_____

17. Are you currently pregnant? Yes.....1
No.....2

18. Have you ever given birth? Yes.....1
No.....2 (go to Q. 23)

19. Do you have children? Yes.....1
No.....2

20. How old were you when you had your first child?_____years

21. How many children do you have now?_____

22. Are they all living with you? Yes.....1 (go to Q. 23)
No.....2

22b. If no, with whom are they living?_____

23. How many children will you like to have in your life? Total_____
Boys_____
Girls_____

PART THREE : *Sexual Behavior*

1. How old were you when you first had sexual intertercourse?_____years
   Not Applicable (go to Q.7)

2. How old was your partner at that time?_____years

3a. The first time you had sexual intercourse, did you or your partner use any family planning method? Yes.....1
   No.....2 (go to Q.4)

3b. If yes, what method ? _____(specify)

3c. From where did you get the method ? _____(specify) (go to Q. 5)

4. If no, why did you not use any method?
   No knowledge of any method.....1
   No method was available.....2
   I wanted to be pregnant.....3
   Partner dislikes it.....4
   I did not plan for it.....5
   Other(specify_____).....6

5. About how many times have you had sexual intercourse in the last four weeks? _____Times

6. Have you ever had sexual intercourse with more than one partner?
   Yes.....1
   No.....2

6b. If yes, how many partners have you had in the last four weeks?_____

7. What are the reasons for engaging in sexual intercourse?
   1._____
   2._____
   3._____
   4._____

8. How much free time do you normally have in a day? _____(state in hours)

8b. How do you normally spend this free time?_____
_____

9. Do you think the way you spend this free time affects your sexual behavior in any way?
Yes.....1
No.....2 (go to Q. 11)

9a. If yes, in what way?_____
_____

10. Since your first sexual experience, how often do you have sex ?
Every other day.....1
Once a week.....2
Once a month.....3
At the available opportunity.....4
Other(specify_____)..5

10b. When was the last time you had sex? _____(state in weeks)

11. From whom do you obtain information on intimate issues including sexual matters? _____

12. Why did you choose this person?_____

13. Do you think a girl can get pregnant the first time she has sexual intercourse?
Yes.....1
No.....2

14. When in the normal menstral cycle can a girl get pregnant?
Anytime in the cycle.....1
A few days after the menses.....2
In the middle of the cycle.....3
During the ovualtion period.....4
A few to the next menses.....5
I have no idea.....6

PART FOUR: ***Sexually Transmitted Infections and Abortion***

1. Have you ever heard of diseases that can be transmitted through sexual intercourse?
Yes.....1
No.....2 (go to Q. 7a)

2a. Please mention the ones you know/heard
a._____ b._____
c._____ d._____
e._____ f._____

2b. From where did you first learn about these diseases? (tick all that apply)

(a.) Friends (b.) Print/Electronic media
(c.) Health Workers (d.) Traditional healer
(e.) Teacher at school (f.) Parents
(g.) Place of worship (h.) Other(specify_____)

3. Please describe what you think these infections are_____

_____

4. How do you think these infections occur? (tick all that apply)

a. Public toilets b. Casual contact c. Air pollution
d. Sexual intercourse e. Sharing personal items
f. Other (specify_____)

5. Do you think these diseases can be cured? Yes.....1
No.....2

6. Please indicate your source of information on these diseases

a._____ b._____
c._____ d._____

6b. Who do you think are most likely to be infected with an STI? (pls. tick all that apply)

(a.) Anyone (b.) only old people (c.) Promiscous people
(d.) Young people (e.) Only men (f.) only women

7a. Have you ever thought you could contract any of these diseases?

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

7b. Please give a reason for your answer _____

7c. Please indicate which of the following you have heard and the symptoms associated with them.

Disease	Symptoms
(a.) Gonorrhoea	_____
(b.) Syphilis	_____
(c.) Trichomonas	_____
(d.) Candidiasis	_____
(e.) Genital Warts	_____
(f.) HIV/AIDS	_____
(g.) Other(specify_____)	_____

8. Have you ever done anything to protect yourself from contracting any of these diseases? Yes.....1
No.....2 (go to Q. 9)

8b. If yes, list what you have done
i._____
ii._____
iii._____
iv._____

9a. Have you (or someone you know) had an STI? Yes.....1
No.....2 (go to Q. 11a)

9b. If yes, what kind of infection was it?_____

9c. Please list the kind of symptoms you (or the person) had
i._____ ii._____
iii._____ iv._____

9d. From whom did you (or the person) found out what the disease was?
i. Self diagnosis ii. Traditional healer
iii. Medical personnel iv. Pharmacist/Chemist/Drug seller
v. Friends/Relatives vi. Other(specify_____)

9e. Can you briefly describe your (or the person's) behavior during that period? _____

9f. What did you (or the person) do about the problem?
i. Nothing ii. Bought drugs and treated myself
iii. Visted the traditional healer iv. Visited Hospital or Clinic
v. Visited Chemist/Drug dealer vi. Other(specify_____)

10a. Did you (or the person) get treated? Yes.....1
No.....2 (go to Q. 11a)

10b. If yes, where?_____ and at what cost N_____?

11a. If you suddenly discovered you have been infected after having sex with your boy/girl friend, what would be your initial reaction?
i. Suprise ii. Angry iii. Confused
iv. Blame myself v. Other(specify_____)

11b. Whose fault will you say it is?
i. My fault ii. His/Her fault iii. Other_____

11c. Will you tell your partner about the infection?
Yes.....1
No.....2

11d. What will happen to your relationship with that person?_____
_____

12a. How are you likely to behave in this circumstance? (tick all that apply)
i. do nothing ii. ask for advice from my friends
iii. see a medical personnel iv. buy drugs and treat myself
v. discontinue the relationship with the person who is responsible
vi. discuss with the person who is responsible
vii. will also take the person for treatment
viii. other (specify_____)

13a. Do you think anything can be done to prevent these diseases?
Yes.....1
No.....2 (go to Q. 14)

13b. If yes, please list what should be done?
i._____ ii_____
iii_____ iv_____

13c. Which of the following do you think is the most effective preventive method? (tick all that apply)
i. Reduce sexual activity ii. Being faithful to one partner
iii. Use condoms always iv. Abstain from sexual intercourse
v. Get more informed vi. other(specify_____)

14. Please tell us your opinions about each of the following statements

	Agree	Disagree	Unsure
a. All STIs are curable	[ ]	[ ]	[ ]
b. STIs do not pose any serious health problems	[ ]	[ ]	[ ]
c. Condoms can reduce the risk of STI infection	[ ]	[ ]	[ ]
d. Only promiscous people get infected	[ ]	[ ]	[ ]
e. STIs can cause permanent health problems	[ ]	[ ]	[ ]
f. People with STIs are likely to get AIDS	[ ]	[ ]	[ ]
g. STIs can occur through one sex act	[ ]	[ ]	[ ]
h. All kinds of STIs are preventable	[ ]	[ ]	[ ]
i. Sexually active youth are at the risk of infections	[ ]	[ ]	[ ]
j. STIs can cause death if not treated	[ ]	[ ]	[ ]

15. If a girl gets pregnant when she is not ready, what will you advise her to do? _____

16a. Have you ever had a pregnancy terminated? Yes.....1
No.....2 (go to Q. 1)

16b. How many times has this happened?_____times

16c. How old were you when this first happened? _____years

16d. Did you go to someone to help you terminate the pregnancy?
Yes.....1
No.....2 (go to Q. 17)

16e. Who did you go to?_____

16f. What did the person do?_____

_____

16g. What was the outcome?_____

17. If you did not go to anybody, what happened?_____

_____

PART FIVE: ***Family Planning***

1. Do you know of any method to avoid getting pregnant? Yes.....1
   No.....2 (go to Q. 4a)

2. Please mention the ones you know
   i._____ ii._____ iii._____
   iv._____ v._____ vi._____

3. Have you ever heard of .....(tick the ones applicable)
   i. Condom [ ] ii. Pill [ ] iii. IUCD [ ]
   iv. Injectables [ ] v. Foaming tablets [ ] vi. Diaphram/Jelly [ ]
   vii. Female sterilization [ ] viii. Mlae sterilization [ ]
   ix. Rhythm [ ] x. Withdrawal [ ] xi. Abstinence [ ]

4a. Which of the above have you ever used? i._____
   ii._____ iii._____

4b. If yes, why?_____

4c. If no, why not?_____

5a. Which of the above are you currently using? i._____
   ii._____ iii._____

5b. If yes, why?_____

5c. If no, why are you not using?_____

6a. Have you ever used or asked your partner to use a condom?
   Yes.....1
   No.....2 (go to Q. 7)

6b. If yes, how often? i. everytime I have sex ii. most times I have sex
   iii. only when it is available iv. when my partner requests for it

7. Do you intend to use any of the above in future?
   Yes.....1
   No.....2

8a. Do you know a source for obtaining these methods? Yes.....1
No.....2

8b. Name a source?_____

9. Who/What is your source of information on these methods?_____

10. From the list below, tick the problems youth have today and how common

	Problems	*Common*	*Not Common*	*Not Sure*
1	Lack of Employment			
2	Abuse of alcohol			
3	Abuse of drugs			
4	Inadequate education			
5	Unwanted pregnancy			
6	Family problems			
7	STIs			
8	Others i._____ ii_____ iii_____			

APPENDIX II

DEPARTMENT OF SOCIOLOGY,
UNIVERSITY OF IBADAN.

SPECIFIC QUESTIONNAIRE ON ADOLESCENT SEXUAL BEHAVIOR

Dear Respondent,
I am _____ of the above named department.
As a result of the enormous problems associate with sexually transmitted infections and it's effect on young people, we are conducting a research to know young people's attitude towards these infections an how they try to resolve any problems that may arise from these infections.
I will be asking you questions, some of which may seem difficult or even absurd. Please feel free to answer as honestly as you can. I want to assure you of the confidentiality of the information you give and for this reason I am not asking for your name. Thank you.

Identification Number_____ Date_____ Location of Interview_____

SECTION A: DEMOGRAPHIC AND HOUSEHOLD INFORMATION (Please tick as appropriate)

1. Sex: ___Male ___ Female
2. What is your age _____?
3. In what year were you born? D___ M___ Y___
4. Marital Status ___Single ____Partnered Other(specify_____)
5. Which is your ethnic group?
   ___Hausa ___Igbo ___Yoruba Other(specify_____)
6. Which is your religion?
   ___Christian (denomination_____)
   ___ Muslim ___Traditional ___Others (specify_____)

7a. What is your main activity?

___Student(__Secondary __Tertiary __ Others (specify_____)
___Apprentice (state type of work _____)
___Worker (paid employee) ___Worker (self employed e.g trading)
___Nothing at present

7b. If you are not a student, what was the highest level of education you ever attained?

___None ___Primary ___Secondary ___Vocational(type____)
___Tertiary ___Professional(specify_____)
___Other (specify_____)

8a. Do you receive any income?

___Yes ___No(go to Q.9)

8b. If yes, how much do you receive on the average? (tick the most appropriate)

___Daily N_____
___Weekly N_____
___Monthly N_____
___Other N_____

9. Are your parents alive? (Tick the one that is alive)

___Father ___Mother

10. What is the **occupation** and **annual income** of your

___Father_____Income N_____
___Mother_____Income N_____

11. What is the highest level of education ever attained by your:

	Father?	Mother?
___None/Arabic education	[ ]	[ ]
___Primary/Adult Literacy	[ ]	[ ]
___Secondary	[ ]	[ ]
___Tertiary	[ ]	[ ]
___Other (specify_____)	[ ]	[ ]
___Don't Know	[ ]	[ ]

12. Whom are you currently living with?

___Both Parents ___Father only ___Mother only
___On my own ___Brother/Sister ___Aunt/Uncle
___Boarding School/Hostel ___Other (specify_____)

13. If you live with others apart from your parents, what is the person's occupation?_____ and annual income? N_____

14a. Did you grow up in this town/village? ____Yes ____No

14b. If No, where did you grow up?_____

14c. How will you describe those with whom you grew up?
__very strict ___quite permissive ___carefree ___can't say

15a. Do you feel free to discuss any issue bothering you with them?
___Yes ___No ___Not at all

15b. Why? please give a reason for your answer _____
_____

16a. Wit whom o you normally discuss personal problems?
___Parents ___Older brother/sister ___Any older person
___My friends ___Other (specify_____)

16b. Why did you chose this person? _____
_____

17a. How many children does your father have? _____

17b. How many children does your mother have? _____

18a. What is your position among your father's children? _____

18b. What is your position among your mother's children? _____

19a. How many wives does your father have?
___One ___Two ___Three or more

19b. What is your mother's position?
___First ___Second ___Third or other

SECTION B: SEXUAL BEHAVIOR AND STIs HISTORY (Please tick as appropriate)

1. Have you ever had sexual intercourse? ___Yes ___No

2. If Yes, how old were you when you had sex for the first time? _____years

3. How many sexual partners do you currently have?
   ___One ___Two ___Three/More ___None

4a. Have you ever had sex with a commercial sex worker (prostitute)?
   ___ yes ___ no ___ can't remember

4b. Have you ever had sex for any financial or material reward?
   ___ yes ___ no ___ can't say/remember

5a. In the last one month, how many times have you had sex?
   ___ once ___ twice ___ three
   ___ above five times or more ___ can't remember

5b. How many people have you had sex with in the last one month?
   ___ one ___ two ___ three ___ can' t remember

6. Which of the following have you ever noticed on penis or vagina?
   __ rash/bumps and pimples __ offensive odour / puss
   __ cut or wound __ burning sensation / itching
   __ other (specify _____)

7. If you have noticed any of the above, how long ago?
   __ less than one month __ less than three months
   __ a long time ago __ can't remember

8. Was that the first time or a reoccurrence?
   __ yes __ no __ can't say __ can't remember

9a. Have you ever been told you have a Sexually Transmitted Infection?
   __ yes __ no __ can't say __ can't remember

9b. Which of the following were you infected with?
   __ Gonorrhoea __ Syphilis
   __ Genital warts __ Others (Specify _____)

10. Who told you you had such an infection?
__ self diagnosis __ chemist or drug dealer
__ medical doctor __ traditional healer
__ others (specify _____)

11a. Form whom did you contact the infection?
__ boy/girl friend __ any of my casual sexual partners
__ the last person I had sex with __ sugar daddy or sugar mummy
__ prostitute __ can't remember

11b. What happened when you discovered the infection? Were you .....?
__ suprised __ confused
__ angry __ blamed myself
__didn't know what to do __ others (specify _____)

11c. Did you inform the person you suspected?
__ yes __ no

11d. If yes, what happened? _____
If no, why? _____

12a. If you informed the person, what was his/her reaction?
__ suprised __ angry __ ashamed
__ denied it __ others (specify _____)

12b. How did you feel during this period? _____
_____

13a. Were you able to do any kind of work (economic activity) during this period? __ yes __ no (go to Q.14) __ not at all

13b. If yes, what kind of work did you do? _____

14a. Did you participate in any social activity during this period?
__ yes __ no (go to Q. 15)

14b. If yes, which activity did you participate in? _____
_____

15. Did you have sex with anyone after you discovered the infection?
__ yes __ no __ can't remember

16a. Did you talk to anyone else (apart from a medical personnel) about this problem? __ yes __ no

16b. If you talked to someone, whom did you talk to?
__ my fiends __ older people around
__ close relatives __ other (specify_____)

17. Why did you talk to this person? _____
_____

18. what did he or she tell you to do?_____
_____

19a. What did you do to get cured ?
__ bought drugs for myself __ went to see a medical doctor
__ talked to the local drug dealer __ went to see the traditional healer
__ I did not do anything __ other (specify_____)

19b. Why did you chose this option? (tick the appropriate ones)
__ couldn't afford more than that __ was the only option available
__ wanted to maintain secrecy __ other (specify_____)

19c. How many times did you see this person before you were told you have been cured?
__ only once __ just twice __ more than three times
__ other (specify_____)

19d. Please specify the number of days _____

20a. How much did it cost you to be treated? N _____

20b. Were you able to afford this cost easily? __ yes __ no

20c. If no, what did you do to get the money?
__ borrowed __ to a credit facility
__ got a free treatment __ other (specify _____)

20d. Did you consider taking your partner for treatment? __ yes __ no

20e. If yes, did he/she agreed to go with you? __ yes __ no

20f. If no, what happened? _____

21. What happened to your relationship with the person who infected you?
__ continued as usual __ stopped having sex with the person
__ put an end to the relationship __ other (specify _____)

22a. How many days, from the day you had sex, did it take you to discover you have been infected? _____

22b. Did you realize you needed help when you realized you have been infected? __ yes (go to Q. 22e) __ not immediately (go to Q.22d)
__ not at all

22c. If yes, how many days did it take from the day you discovered the infection before you realized you needed help? _____ days

22d. If no, why not? _____

22e. How many days after discovering the infection did it take you to go for medical treatment? _____ days

22e. Please describe how you were able to cope with the situation after discovered the infection? _____

22f. What were your survival strategies before you went for treatment? _____

_____

22g. Since you were treated, have you been having sex? ___ yes ___ no

22h. If yes, what have you been doing to prevent contracting an STI? (tick the appropriate ones)
__ used condoms __ make sure my partner is not infected
__ use drug always __ go for medical check ups
__ stayed with only one partner __ other (specify_____)

23a. Were you advised by those who treated you? __ yes __ no

23b. If yes, what kind of advice were you given? _____

_____

24a. Did you comply with all the advice given? __ yes __ no

24b, If no, why did you not comply? _____

_____

25a. What do you think is the most important thing someone with an STI infection should do?_____

_____

25b. What other comments do you have on the issue we have been discussing?

_____

_____

Thank you so much for your time and effort, your responses will go a long way in solving the problems of STI infections among young persons in this community.

APPENDIX III

ADOLESCENT REPRODUCTIVE BEHAVIOR
(Study on Sexually Transmitted Infections)
FOCUS GROUP DISCUSSION GUIDE

1a. What are the nice things you enjoy most at this age?

1b. What are the common problems people of your age group have? Probe for culturally induced problems.

1c. With whom do you normally discuss these problems?

1d. Do you discuss personal problems with your parents?

2a. What is the best age for boys and girls to start sexual relations for the first time? or marry? Probe for their reasons for suggesting this age(s).

2b. At what age do boys and girls normally start in this community? Probe for why.

2c. Are their negative outcomes from this behavior? Probe for kinds of consequences.

2d. Who /What are the sources of information on sex, reproduction and personal development for adolescents? Probe for specific sources and information obtained.

3a. Do you know of anything that can be done to prevent pregnancy? Probe further.

3b. Have you ever heard of modern methods of family planning? Probe for known methods.

3c. If a girl mistakenly gets pregnant and does not want it, what should she do? Probe for why she should behave that way.

3d. Why do girls terminate pregnancy? Probe for specific reasons and consequences.

4a. What are Sexually Transmitted Infections? Probe for types and symptoms and consequences.

4b. Do you think these infections can be cured? Probe for methods of treatment.

4c. Ho do young people receive information on treatment methods? Probe for how effective these methods are.

5a. Do young people use reproductive health services?. Probe for kind (e.g Govt., Private or NGO and why the choice.

5b. Can you talk abput the services provided, approach and necessary improvements?

6. What do you think should be done to help young people in this community? Probe

7. What other general comments do you have?