EFFECTIVENESS OF MOTIVATIONAL INTERVIEWING AND SELF-EFFICACY TECHNIQUES IN FOSTERING HIV RISK-PROTECTIVE BEHAVIOUR AMONG MALE INMATES OF BORSTAL REMAND CENTRES IN NIGERIA

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DEDICATION

This work is dedicated to the Almighty God in whom I trust and who provided all it took to complete this work- great is your faithfulness. Also, to my late father, Chief Michael Filani Elefosan for his unparalleled love for education and for setting a standard I strived so hard to attain

ABSTRACT

Adolescents in Borstal remand centres, even though in a highly restrictive environment are typically identified with risk-taking behaviours which increase their vulnerability to HIV infection with an attendant socio-economic impacts on the larger society. Hence, evidence has shown that the prevalence rate of HIV is higher among those in correctional settings than those in the larger society. However, previous studies have focused on the prevention, diagnosis and treatment of HIV among adolescents outside correctional settings with little attention on those in the remand centres, particularly in the Borstals. This study, therefore, investigated the effects of Motivational Interviewing (MI) and Self-Efficacy Techniques (SET) in fostering HIV risk-protective behaviour among male inmates of Borstal remand centres in Nigeria. It further examined the moderating influence of socio-economic status and age on responents.

The study adopted a pretest-posttest control group experimental design with a 3x2x2 factorial matrix. Non- proportional random sampling technique was used to select 40 participants from each of the three Borstal remand centres located in Abeokuta, Ilorin and Kaduna totalling 120. The respondents' ages ranged between 13 and 20 with the mean age of 13.9. The two treatment groups were exposed to eight-week training in MI and SET while respondents in the control group received no psychotherapeutic training. Three instruments were used, namely, HIV Risk Behaviour Scale (r=0.86), Family and Environmental Sexual Risk Scale (r=0.78) and HIV Risk- Protective Behavioural Scale (r=0.71). Seven hypotheses were tested at 0.05 level of significance. Data were analysed using Analysis of Covariance.

Motivational interviewing and Self-Efficacy had significant effects on HIV risk protective behaviour of the respondents ($F_{(2,117)} = 30.41$ וי^2=.36);respondents in MI had the highest score in their HIV risk- protective behaviour ($\bar{x} = 38.84$); followed by SET ($\bar{x} = 37.54$) and those in control ($\bar{x}$=31.21).There was a significant moderating effect of socio-economic status on the respondents' HIV risk-protective behaviour ($F_{(1,117)} = 3.84$ וי^2=.14) as respondents from high socio-economic background performed better ($\bar{x}$= 35.18) than those from low socio-economic background ($\bar{x}$= 34.00).The interaction effect of treatments and age was more significant on early adolescents respondents ($\bar{x}$=34.62) than with late adolescents ($\bar{x}$=34.45) and the interaction effect of adolescent age and socio-economic status was also significant (($F_{(1,117)} = 4.54$ וי^2=.41) However, there was no significant effect of adolescents' age on the HIV risk-protective behaviour of respondents as both early and late adolescents showed no significant difference in their HIV risk protective behaviour.The three way interaction effects of treatments, adolescents' age and socio-economic status was also not significant.

Motivational interviewing and self-efficacy techniques were effective in fostering HIV risk-protective behaviour among adolescents in Borstal remand centres in Nigeria. The two approaches should, therefore be utilised by counselling psychologists among adolescents in remand centres. Also, more attention should be directed at late adolescents and those from low socio-economic background for better results in HIV risk- protective behaviour.

Keywords: Male adolescent inmates, HIV risk-protective behaviour, Motivational interviewing, Self-efficacy techniques, Borstal remand centres.

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CERTIFICATION

I certify that this research work was carried out by Filani, Joseph Bankole in the Department of Guidance and Counselling, Faculty of Education, under my supervision.

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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Young people all over the world are associated with juvenile delinquency ranging from mild to serious dimensions. The reason for this, according to Ezeani (2009), is because at the stage of Adolescence, an individual undergoes physical, emotional, psycho-social and hormonal changes at the same time and each of these changes has a bearing on the formation of positive or negative behavioural patterns. Juvenile delinquency refers to any act, in violation of criminal law, committed by a person defined under law as a juvenile, which, if had been committed by an adult, will be treated as crime or criminal conduct. Within the context of the Nigerian prison system and some commonwealth countries, there is an arm called the Borstal Remand Centre which is dedicated to the rehabilitation of adolescents whose conducts constitute acts infringing on the laws of the land or are out of parental control. Confinement in such centre is intended to deter, rehabilitate and re-integrate such individuals into the society.

According to the Nigerian Remand Centres Act (1962), the objective of those centres is to bring to bear every good influence which may establish in the inmates the will to lead a good and useful life on release. However, there are growing concerns on the various risk-taking practices that take place among inmates which make them vulnerable to harmful diseases including HIV. Such practices include sharing of needles among injection drug users (IDU), homosexualism, sharing of sharp objects such as blades, clippers and others, as well as reported cases of biting whenever they are engaged in physical combat.

Also, the remand centre is a dynamic place where inmates move in and out from time to time without being subjected to pre-requisite medical examination to confirm their HIV status either on admission or at discharge. As such, inmates are "on their own" when it comes to the issue of protective behaviour

According to Sedlack and Macpherson (2010), Youths in correctional settings are a high risk population who in many cases, have unmet physical, developmental and mental health needs. Studies have shown that some health issues occur at higher rates among adolescents in correctional centres than in the general adolescent population (Forest, Tamber, Riley, Esminger & Starfield, 2000). Needle sharing and sexual

activity, although prohibited in such centres, nevertheless take place covertly among individuals who already have a history of similar high-risk behaviours before incarceration. Tattooing is a common practice in correctional settings and is associated with group membership and desire for personal expression. The use of unsterilised, makeshift tattooing equipment (including strings, pins, needles and others) is a risk factor for transmission of HIV, hepatitis, and other transmissible infections. Expectedly, these makeshift instruments are difficult to sterilize reliably thus facilitating the spread of blood-borne infections (CDC, 2001 & Talvi, 2007). Possession and use of illicit substances are forbidden in correctional facilities, but research has found that such substance use prohibitions may be circumvented through the cooperation of correctional personnel (Seal, Margolis, Sosman, Kacanek & Benson 2004; Talvi, 2007**)**.

According to Maliki (2010), the scourge of HIV has left individuals, families, communities, states, nations and the world at large at a loss about what to do to stop or halt the spread of the disease due to its devastating socio-economic effects. Statistics show that a large number of cases, prevalence and death rate, as a result of the HIV scourge, occur in Africa more than other regions of the world thus making the continent the focus of the world's HIV/AIDS campaigns (D'Aulnais, 2007).

Ahonsi (2014) Contended that age group 10-24 year-olds, becomes even more important in Nigeria where it constitutes a large proportion of the total population and already makes significant social and economic contributions to household and societal viability. The National Population Commission (2013) reported that projections from the 2006 national population census showed that adolescents and young adults make up over a third (31.6 percent) of Nigeria's large and growing population. Thus, by the end of 2012 when Nigeria's population was estimated to have grown to over 172 million, young persons aged 10-24 numbered over 55 million; with about 3 million Nigerians presently living with HIV, young people are clearly disproportionately affected by the epidemic in absolute terms even with the decline in overall HIV prevalence from a high of 5.8% in 2001 to about 3.4% in 2012 (Ahonsi 2014). In the same vein, Morris, Ulmer and Chimnani (2003) reported that while the spread of the virus may be slowing among other members of the global community, increase in incidence of the disease appears to be the norm among youth all over the world

Adolescent sexuality and its consequences are sources of concern to numerous societies across many generations and for good reasons. Teenage acquisition of

sexually transmitted diseases brings a unique set of costs not only to the adolescents involved, but also to the larger society. (Martin, Park, Sutton, 2002). The need to admit that young people are having sex but lack the proper knowledge to protect themselves is particularly important in the war against HIV. Surveys continue to indicate that young individuals between 15 and 24 years harbour serious misconceptions about HIV and how it is transmitted (Cohall, Kassotis, Park,Vaughan,Bannister & Northridge 2001).

Jahanfar, , Lim, Loh, Yeoh and Charles (2008), reported that concerns about risk of infection with human immunodeficiency virus (HIV) has renewed interest in the sexual behavior of adolescents in developing countries, where they represent a large proportion of the population and are at high risk. Since HIV vaccine is not widely available and its efficiency is still under investigation, primary prevention including sex education is the key factor for eliminating HIV epidemic among adolescence.

The first HIV seroprevalence sentinel survey among pregnant women age 15-49 years attending antenatal clinics to monitor the trend of the HIV epidemic was undertaken in 1991. Sentinel survey data show that the HIV prevalence increased from 1.2% in 1991 to 5.8% in 2001. After 2003, the prevalence declined to 4.4% in 2005 before slightly increasing to 4.6% in 2008. Analysis of the HIV prevalence trend in Nigeria indicates that the epidemic has halted and is showing signs of stabilizing at 4% from 2005 (Federal Ministry of Health Nigeria, 2010). The leading route of HIV transmission in Nigeria is heterosexual intercourse, accounting for over 80% of the infections. Mother-to- child transmission and transfusion of infected blood and blood products are generally estimated as ranking next as common routes of infection; arguably, each of these two is believed to account for almost 10% of infections. However, other modes of transmission such as intravenous drug use and same sex intercourse are slowly growing in importance (National Agency for the Control of AIDS, 2009).

According to Wodi (2005), with more than four million persons infected, Nigeria is estimated to harbour over 11% of the global disease burden and is ranked third globally in the HIV infection cluster. Noteworthy is the prevalence rate of 10.5 % in the age group of 15-29. Ignorance about HIV/AIDS and its dynamics is all pervading; adolescents engage in apparently what they believe as normal behaviours, oblivious of risks of HIV transmission. On the other hand, there is high stigmatization of the infected; they suffer rejection tending to hostility by friends and families out of

uninformed fears and judgmental attitude. This palpable ignorance, apathy, discrimination and stigmatization create room for extreme misinformation and skepticism – the height of which is total denial of the reality of HIV infection. In most families, discussions on sexuality issues with adolescents are viewed as capable of making them promiscuous.

Within the Nigerian context, professionals concerned with adolescents such as Uwakwe (1998), Falaye (2000), Nwagwu (2010) and Maliki (2010) have developed school and community-based programmes to reduce adolescent sexual risk-taking behaviours. In spite of the substantial progress made in addressing the issue by these professionals, relatively few or no attempt was made to look in the direction of adolescents in correctional centres and this is the gap that this current study aims at filling.

According to Wodi (2005), in order to reverse the HIV/AIDS incidence in Nigeria, educational and support programmes must focus on increasing awareness among Nigerian youths of the link between personal behaviour and personal risk of contracting HIV/AIDS. These programmes must also focus on reducing erroneous beliefs among Nigerian youths about HIV infected persons in order to promote positive attitudinal change. Uwakwe (1998) stated that to be able to avoid HIV infection, adolescents must perform complex and difficult sequence of behaviours that are rarely explicitly taught, and are often socially disapproved in our socio-cultural milieu. Nigerian adolescents have been socialized with feelings and thoughts that condone a wide spectrum of risk-taking behaviours especially sexual activity, but inhibit performance of HIV/AIDS preventive behaviours. Therefore, a study such as the present one would go a long way in further extending the scope of current efforts aimed at stemming the tide of the scourge of the disease among adolescents in remand centres.

Within the Nigerian prison system, HIV/AIDS is a serious health threat for inmates; Iwoh (2004), in a rapid assessment on HIV/AIDS in Nigerian prison, reported a prevalence rate of 8.7%. Also, prevalence was higher among short-term inmates which could suggest recent infection. This increased risk is believed to be due in part to a lack of HIV prevention care and support services and the occurrence of unprotected sex and other risky behaviours among inmates (FMOH 2008).

According to Odekunle (2007), a number of reforms have taken place in the Nigerian criminal justice system from the judiciary to the police and to the penal institutions. Successive regimes have made and implemented various policies in line

with contemporary developments in the system. The latest of these reforms was in line with the global trend to shift from a punitive and retributive penal system, to a reformatory and rehabilitative system whereby the welfare of inmates is given a pride of place. However, certain inherent policies in the system still reflect the archaic penal philosophy. Some of these violations include provision of insufficient treatment for serious medical conditions and lack of adequate health education on disease control, just to mention but a few. In countries where the penal system is motivated by the rehabilitative philosophy, inmates are treated first as citizens with certain inalienable rights and not just as criminals whom the society is better without. (Ikuteyijo &Agunbiade, 2008).

Although sexual and substance use behaviours are not permitted in incarcerated settings, the reality is that such behaviours do occur. Therefore, efforts to reduce the risk of infection from these behaviours would benefit both the incarcerated persons and the communities to which they will return. Indeed, researchers and advocates have expressed the need for more harm reduction programmes in prisons and jails (Seal, Margolis, Sosman, Kacanek & Benson 2004). Also, the use of harm reduction strategies such as condoms and access to sterilised injection equipment in correctional facilities is endorsed by the World Health Organization (WHO, 2004)

Among adolescents, indicators of HIV risk-protective behaviours include abstinence, ability to delay sexual intercourse until marriage, not sharing sharp objects (such as blades, injections and clippers) and not engaging in behaviours such as homosexualism, drugs and alcohol which can predispose them to take sexual risk thereby resulting in HIV infection.

Various factors shape adolescents' drive towards taking sexual risks. These factors include taking sexual information from sources which are devoid of facts. Findings by Uwakwe, Onwu and Mansaray (1993) reveal that the most common sources of information about sexual reproductive matters among adolescents are friends, school-mates and the media, while parents and guardians are the least common sources.

Peer group influence is significant in adolescents' social development. Age mates play a great role in the everyday life of adolescents. Significantly, peer group interactions provide a basis for an adolescent's self-evaluation and critical information on what he or she is like, how he or she should behave and so on. These interactions help the adolescent to compare self with other age mates; an important exercise, which

an adolescent does to evaluate his or her actions, attitude, feelings and values (Falaye 2001).

In addition to the above, HIV transmission pattern differs among adolescent population as age or stage of development influences comprehension and interpretation of sexual content for instance, Silverman-Watkins and Sprafkin (1983) reported that 12-year-old adolescents were less likely to understand suggestive material that can promote promiscuity than 14 and 16 year adolescents. Also, broad indicators of youth vulnerability and responses to HIV and AIDS in Nigeria from the National HIV/AIDS and Reproductive Health Survey Report show that HIV prevalence rate among 15-19 years old adolescents between 2008 and 2012 was 2.1% while 1.9% was recorded for those between 20-24 while comprehensive knowledge about HIV among those between ages 15-19 was 28.2%, it was 37.2% for those between ages 20-24 (Federal Ministry of Health, 2013).

However, Ahonsi (2014) contended that this highlighted pattern still do not sufficiently unmask the huge variations in HIV prevalence and its impact among different subgroups of young Nigerians, who represent a highly heterogeneous population as factors that may affect HIV exposure and impact go beyond age and gender to include marital status, schooling status, level of education, employment status, rural–urban residence, migration status, sexual activity, living arrangements (with one, two, or no parents), HIV status, religion, sexual orientation, and household economic status. Data from the 2007 and 2010 Integrated Biological and Behavioural Surveillance Survey (IBBSS) show clearly that HIV prevalence among young female sex workers (especially the brothel-based) and young men who have sex with men are 4-5 times higher than the prevalence observed in the general population (FMOH, 2011).

Also, the influence of parental socio-economic status on adolescent sexual behaviour has generated various positions from researchers. Abu and Akerele (2006) asserted that among male and female adolescents, variables like family history, parental education and type of parental care affect sexual behaviour. If teens feel parental support, feel a connection to their parents, and are aptly supervised by them, they are less likely to have early sexual exposure and become pregnant; if parents model sexual risk-taking behaviour, such as early child bearing, or permissive attitude towards pre-marital sex, adolescents from such environment could engage in early sexual intercourse. Another family influence on adolescent sexual behaviour can be genetic or biological variables. Hormonal level and the timing of puberty, which can affect sexual

behaviour, are partially hereditary; if a mother is young at her first intercourse, it is more likely that both son and daughter will have sex before age 14 (Abu and Akerele 2006).

Also, Owuamanam (1997) opined that parents from low socio-economic background use more physical punishment while parents from high socio-economic background use reasoning discipline more frequently, which may influence the adolescent's decision on sexual relationship while Aremu (2001) reported that those who come from low strata of socio-economic conditions; where accommodation is a single room; where parents cannot fulfil the legitimate needs of their children; where the children do not feel secured and emotionally satisfied tend to be sexually permissive.

However, Researchers, such as Bauserman, Henderson, Gray, Shea and Tomayasu (2003), Dolan (2008) and Gaunay and Gido (1986) have found that HIV/AIDS education and skills training during incarceration among adult prisoners are associated with reported reduced health-risk behaviour following their release. It is on this note that the researcher got the impetus to examine the effectiveness of motivational interviewing and self-efficacy techniques in fostering HIV risk-protective behaviour among inmates of Borstal Remand Centres in Nigeria, through this present study.

According to Miller and Rollnick (1991), Motivational Interviewing is a non-judgemental, non-confrontational and non-adversarial therapeutic approach for eliciting behavioural change by helping clients to explore and resolve ambivalence on risks and experience of health-related problems. Typically, clinical interventions for addictive and health-threatening behaviours have relied heavily on approaches rooted in a medical or disease model whereby healthcare professionals are regarded as "experts" in possession of knowledge that can remediate a variety of clinical ailments. However, over the years, a growing body of evidence has emerged to suggest that a non-collaborative style of interaction will not only alienate the client from the process of treatment, but often results in poorer outcomes as well; motivational interviewing attempts to increase the client's awareness of the potential problems caused, consequences experienced and risks faced as a result of the behaviour in question through four processes: expressing empathy, developing discrepancy, rolling with resistance and supporting self-efficacy. Alternately, the therapist helps the client to envisage a better future and become increasingly motivated to achieve it. Thus, this

strategy seeks to help clients think differently about their behaviour and ultimately consider what might be gained through change (Miller & Rollnick, 1991).

According to Britt, Hudson and Blampied (2004) there is evidence that patient-centred approaches to health care consultations may have better outcomes than traditional advice giving, especially when lifestyle change is involved, motivational interviewing provides a way of working with patients who may not seem ready to make the behaviour changes that are considered necessary by the therapist.

Motivational Interviewing appears to hold substantial promise for health behaviour change. It is consistent with the call (from patients, health researchers and practitioners) for more client-centred approaches in health care in which the therapist-patient relationship is seen as a partnership, rather than an expert-recipient one. Motivational Interviewing also provides therapists with a means of tailoring their interventions to suit the patient's degree of readiness for change. In particular, it provides practitioners with an effective means of working with patients who are ambivalent about, or not ready for, change (Britt, et al, 2004)

On the other hand, self-efficacy, according to Bandura (1994) is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce diverse effects through four major processes which include cognitive, motivational, affective and selection processes. Embodied within the self-efficacy framework is the concept that people have a capacity for self-regulation, which allows them to exercise control over their destinies, and to direct their behaviour towards perceived future goals and outcomes (Bandura, 1996). Self-efficacy is grounded in the interaction between environmental events, personal factors and behavior. Bandura (1984) is of the opinion that individuals who believe that they are highly efficacious, feel differently from those who perceive themselves as inefficacious. That is, a low sense of efficacy may cause an individual to avoid difficult tasks and to view these tasks as personal threats (Bandura, 1993). Individuals who perceive themselves as inefficacious have low aspirations, weak commitment to their goals, and often give up quickly when faced with difficult tasks. In contrast, individuals with strong sense of efficacy approach difficult tasks as challenges to be mastered, set challenging goals, maintain strong commitment to the goals they set, redouble their efforts in the face of failure, and believe they can control threatening

situations (Bandura, 1993). Perceived self-efficacy relates to coping behaviour, stress reactions, reaction to failure experiences and achievement (Bandura, 1982).

Four main informational sources of self-efficacy are identified: performance accomplishments, vicarious learning, social persuasion and emotional arousal. Performance accomplishment is based on an individual's past success in performing a task or behaviour; in vicarious learning, an individual observes and learns from the behaviours of others; social persuasion has to do with individual reinforcement for behaviour by others while the final stage, which is emotional arousal, Bandura (1997) indicates, is especially significant for behaviour involving health functioning, coping with stressors and physical accomplishments. That is, individuals utilize both their moods and their bodily sensations when formulating their self-efficacy beliefs (Aremu, 2008).

1.2 Statement of the Problem

The existence of HIV among individuals in correctional settings is not new and inmates' risky practices in Nigerian prisons and remand centres have been established. Generally, the neglect of this population may be a reflection of the penal policy of the country, which emphasizes punishment and retribution at the expense of reformation and rehabilitation of inmates. If the nation must meet the Millennium Development Goal of eradicating HIV/AIDS, then reforms in the criminal justice system must incorporate reformation and rehabilitation into the penal philosophy, so as to guarantee the well-being of inmates in line with the best global practices. Since the welfare of inmates is invariably the welfare of the society, the incorporation of interventions that can stem the tide of HIV among inmates should be considered as imperative as those carried out for adolescents outside remand centres if the programmes are to make meaningful impact since the welfare of inmates is invariably the welfare of the society. Enormous resource have been expended on the eradication of HIV globally, for the resources to be justified, a holistic approach which will take care of all vulnerable groups, irrespective of their liberty status, must be put in place. This can only be achieved when inmates are exposed to the needed skills they can use to protect themselves from the scourge of the disease.

With the HIV prevalence rate of 3.4% of Nigeria's population, the immediate impetus for this study arose from the fact that adolescents who are in correctional institutions are at a higher risk of HIV infection because they are brought together from

different backgrounds. This is coupled with the fact that little or no measure is put in place to ascertain their HIV status when they arrive at the remand centres. The resultant effect is the likelihood of uncontrolled transmission of the deadly disease among inmates. Therefore, there is an immediate need for the development of relevant psychological interventions for the prevention of HIV among adolescents in correctional settings.

1.3 Purpose of the Study

The main purpose of this study is to experimentally investigate the effectiveness of motivational interviewing and self-efficacy techniques in fostering HIV risk-protective behaviour among inmates of Borstal Remand Centres in Nigeria. In addition, the study determines which of the treatments (motivational interviewing and self-efficacy techniques) is more effective in fostering HIV risk-protective behaviour as it also investigates the extent to which parental socio-economic status and adolescent age play moderating roles on HIV risk -protective behaviour among inmates.

1.4 Significance of the Study

This study provides a firm basis for officials of remand centres to sensitize inmates on ways of exhibiting HIV risk-protective behaviour while in remand centres by incorporating some of the treatment package used in their rehabilitation programme.

The study also provides necessary information that would help government, non governmental organisations and the authorities of remand centres to be aware of some of the underlying factors that promote risky sexual behaviour among inmates. This study will also help the prison officials in providing information on how to put in place measures that will foster HIV risk-protective behaviour in their schedule of rehabilitation programmes.

Another benefit of the study is that inmates would be able to appreciate their own efforts in protecting themselves from the scourge of HIV transmission. It is expected that this would be achieved by equipping them with skills in the treatment packages which could assist them to develop adequate HIV protective behaviour as well as encourage a healthy lifestyle upon their release.

In view of the global shift from punishment and retribution to reformation and rehabilitation of inmates, the treatment strategies will provide adequate information on sex-related issues that are hardly taught in the centres.

The treatment strategies will contribute relevant data and provide counselling interventions which would be helpful to counselling and health psychologists on how to help adolescents resolve their ambivalent feelings on HIV transmission. It will also improve their judgemrnt of their capabilities to organize and execute courses of action required to attain HIV risk-protective behaviours.

Finally, the decline in national HIV prevalence may be brief if efforts to keep it on the decline slope are not intensified among those in correctional settings therefore, research in this area is important because high prevalence of HIV transmission in remand centres can threaten HIV control measures in the larger society which inmates would eventually be released into.

1.5 Scope of the Study

This study was carried out among adolescents who are currently undergoing rehabilitation in Borstal Remand Centres located at Abeokuta, Ilorin and Kaduna, Nigeria. Inmates at Abeokuta and Kaduna formed the two experimental groups while inmates at the Ilorin centre formed the control group.

1.6 Operational Definition of Terms

The following terms are operationally defined within the context of the study.

Inmates: These are male adolescents between age 13 and 20 who are kept in Borstal Remand Centres for rehabilitation and re-education either because they engaged in acts that infringed on the law or are out of parental control

Borstal Remand Centre: This is a designated correctional institution within the Nigerian prison system where young people undergo rehabilitation on maladaptive behaviour before they are reintegrated back into the society.

Motivational Interviewing: This is a psychotherapeutic approach which was used by the researcher to help promote HIV risk-protective behaviour among the study participants by helping them to resolve ambivalent feelings about HIV and increasing their awareness of the inherent problem which their risk behaviours portend in order to motivate change.

Self-Efficacy Technique: This is a therapeutic approach designed to elicit convictions from the participants about their abilities to mobilize cognitive,

motivational and behavioural attributes needed to produce capabilities that will lead to exhibiting HIV risk-protective behaviour .

HIV (Human Immunodeficiency Virus): This is a deadly virus that affects humans as a result of contact with blood or other bodily fluid of infected persons either through sexual intercourse or exchange of sharp objects.

HIV Risk-Protective Behaviour: This is a behavioural pattern that is exhibited by adolescents to guide themselves from being infected with HIV. Indicators of such behavioural pattern include abstinence from sexual intercourse, not sharing sharp objects with others and not engaging in behaviours that can predispose one to HIV infection.

Socio-Economic Status: This is the classification of the participants on the basis of their parents' levels of education, positions their parents occupy in the society, average yearly income and the number of houses and cars they possess. In this study, participants are classified into high or low socio-economic status using the above-mentioned socio-economic indices.

CHAPTER TWO
REVIEW OF LITERATURE

2.1 Introduction

This chapter consists of a review of related literature under the following subheadings:

HIV among Adolescent Population.

HIV-risk Behaviours in Remand Centres

Causes of HIV/AIDS Prevalence Among Adolescents

Adolescent Sexuality

Theoretical Background

Theoretical Framework for the Study: Theory of Reasoned Action (TRA)

Theories on Adolescents Sexual Behaviour

Motivational Interviewing

Motivational Theory

Principles of Motivational Interviewing

Self- Efficacy

Self-Efficacy Beliefs and Human Functioning

Self-Efficacy Experiences in Adolescence

Self-Efficacy and Human Attainment

Sexual Self Concept and Self- Efficacy

Empirical Review of Literature

Family Influences on Adolescent Sexual Behaviour.

Adolescents Age and Sexual Risk-taking Behaviour.

Parental Socio-Economic Status and Adolescent Sexual Behaviour.

Motivational Interviewing and Health Risk Behaviour.

Self-Efficacy and Health Risk Behaviour.

Appraisal of Literature

Hypotheses

Conceptual Model

2.2 HIV Among Adolescent Population

From Aristotle's early treatises on sexual desire to Sigmund Freud's theories of psychosocial development, adolescent sexuality has been a topic of concern for virtually every generation. As the 21st century unfolded, societies continued to be

challenged by adolescent sexual behaviour and its consequences. While medical providers often discuss adolescent sexuality in terms of "risk," it is important to remember that sexuality, sexual behaviors and sexual relationships are an important and necessary part of human development (Garofalo, Forcier, Middleman & Tochia, 2010). The United States Public Health Service (2010) has identified "responsible sexual behavior" as one of the ten leading public health issues facing the nation. Similarly, the World Health Organization (2004) identified adolescent-friendly health services as a worldwide priority.

Adolescence, the transition period between childhood and adulthood extends roughly through the entire second decade of life. Growing into adolescence is a gradual process and has to do with different stages of development. It is the period in which patterns of behaviour which has long-life consequences are formed and become established. For instance, it is in adolescence that many individuals begin sexual relations and some become involved in risky sexual behaviours with life-threatening consequences (Abu & Akerele, 2006). The increase in adolescent pre-marital sexual activity in conjunction with the multiplicity of sexual partners have led to an increase in the incidence of unwanted pregnancies and sexually transmitted infections (STI) (ARFH 1997). The high incidence of the Acquired Immunodeficiency Syndrome (AIDs) among persons now in their 20s globally implies that, many were infected with HIV in their adolescent age (Busari 1996).

Research conducted in South Africa by Pettifor, Rees, Steffenson, Hlongwa-Madikizela, MacPhail, Vermaak and Kleinschmidt (2004) indicates that the prevalence rate of HIV was 10.2% among the 15-24 year-olds. This makes HIV and AIDS not only a health issue but a developmental problem as well, since the majority of the sufferers cannot fully contribute to society, as they tend to suffer from opportunistic infections and are mostly unwell. AIDS is therefore a major health crisis, a threat to economic development and social solidarity. Nattrass (2004) and Dewaal (2003) argue that the impact of AIDS on economic development amounts to a development process run in reverse.

Among adolescents, information about HIV/AIDS is available but such knowledge does not guarantee change in behaviour. De-Gaston, Jensen, Weed and Tanas (1994) argue that there is a weak association between sexual knowledge, attitude and behavioural change. Therefore, there is a need to revisit the available preventive strategies such as HIV and AIDS education programmes as well as the introduction of

life-skills programmes in schools to track their impact on curbing the spread of the pandemic.

According to UNICEF (2004), HIV/AIDS education programmes did not succeed in changing behaviour as there was over-emphasis on providing information on the pandemic without focusing on attitudes, values and skills related to human sexuality, social norms and gender issues. Furthermore, HIV and AIDS-specific services were not comprehensive. There was a lack of psycho-social skills, and teachers were not adequately trained and supported. Also, high teenage-pregnancy rate is attributed to the inaccessibility of free confidential family planning, and poor communication with parents regarding safe sexual practices (Hopkins, 2000).

Adamchak (2005) reported that lack of youth friendliness services also contributes to the inaccessibility of services to teenagers on HIV issues; attitudes and behavioural practices among school-going teenagers are important areas of research in a bid to understand what can be done to arrest the spread of the HIV and AIDS epidemic. Statistics show that young people (10-24 years of age) account for more than 50% of all HIV infections worldwide (UNICEF, 2004).

Although teenagers appear to be the group most ignorant about sex, they are reported to be more exposed to the risk of HIV infection through their risky sexual behaviour and irresponsible conduct (Davhana-Maselesele, Lalendle and Useh, 2007).Teenagers are at a high risk of contracting HIV/AIDS as they are still at an exploratory stage regarding sexuality. Adams and East (2002) indicate that girls find it difficult or impossible to negotiate for safe sex because many of them are coerced into their first sexual experience, mostly by older men who usually have multiple sexual partners. This situation of unequal power relations further compromises the decision-making processes as these older and more experienced men are also in charge of making decisions on condom use, while their [women partners] are passive (Kalmus, Davidson, Cohall, Laragus, and Casell, 2003). This exposes them to other sexually transmitted infections as well as HIV and AIDS.

Dickson, Tetteth and Foy (2000) are of the opinion that teenagers usually engage in short-term sexual relationships that may lead them into having four or more successive sexual partners. A study conducted in the Bushbuckridge area of Limpopo Province, South Africa on perceptions of teenagers regarding teenage pregnancy revealed that poor sex education, peer influence and lack of access to health-care services were associated with high teenage-pregnancy rates (Richter & Mlambo, 2005).

In a study of knowledge of and attitudes towards AIDS among female college students in Nagasaki, Japan, Maswanya, Moji, Aoyagi, Yahata, Kusano, Nagata, Izumi and Takemoto (2000), found that there was a discrepancy with regard to AIDS prevention among college students as well as the development of desirable attitudes towards people with HIV and AIDS. Mass media was viewed as the main source of information; acceptance of someone with HIV and AIDS was associated with knowledge of the pandemic. They suggested that education programmes in colleges should aim at reducing the discrepancy between general knowledge and desirable attitudes regarding HIV and AIDS.

Maswanya et al. (2000) argue that the media tend to overemphasize the dreadfulness of HIV infection and this may produce irrational attitudes towards those with HIV and AIDS, especially in cultural context, and ignorance may lead to unnecessary fear and uncertainty among teenagers. Studies by De Gaston, Jensen, Weed and Tanas (1994) and UNICEF (2004) have shown that there is no correlation between the amount of knowledge and change in behavioural patterns. This means that even when people have knowledge regarding HIV and AIDS it does not necessarily mean that there will be behavioural change

One in five Africans and one in three African adolescents live in Nigeria, the most populous country in Africa. Nigeria's birth rate for adolescents is one of the highest in the world, and the prevalence among adolescents in Nigeria of sexually transmitted infections, including HIV, is climbing rapidly. (UNAIDS and WHO 2000). In an effort to reduce high maternal and infant mortality, high rate of sexually transmitted infection (STI) and dropout from school, Nigeria developed a national reproductive health policy in 2000 that focuses on preventing risky sexual behaviour during adolescence (WHO, 2001).

Adolescence, is probably the most challenging and taxing phase in the developmental process of the human organism. These challenges, which are often traumatic to most people stem from the fact that young males and females are faced with the task of biological, sexual and physical maturity as well as the adult society – induced demand for emotional stability. However, each of these invariable processes of maturation is independent of personal control of the adolescent and often results in conflicts which the youngster may attempt to resolve by engaging in inappropriate and socially undesirable patterns of behaviour. These patterns include sexual risk–taking

behaviour which can increase their vulnerability to sexually transmitted diseases (Uwakwe, 1998).

Nigeria carries the second heaviest burden of HIV in Africa and has an expanding population of People Living with HIV/AIDS (PLHWHA). Despite the challenges in scaling up access, institutional reforms and political commitment to tackle the diseases, the country has seen more citizens placed on life saving medication. For the twenty six year period dated 1986 (when the disease was first discovered in Nigeria) till December 2011, 3,459,363 people now live with HIV and an estimated 1,449,166 require ARV. 388,864 new infections occurred in the year ended 2011 and records show 217,148 AIDS-related deaths (FMH, 2012).

Between 1991 and 2001, Nigeria witnessed an increase in the prevalence of HIV in the country. Consequently, and in line with guidelines from the World Health Organization (WHO), the government adopted ANC sentinel surveillance as the system for assessing the epidemic. (NACA, 2012)

The Federal Ministry of Health (2012) reported that the national HIV Sero prevalence level, obtained from sentinel surveys of antenatal care attendees, increased from 1.8 percent in 1991 to 5.8 percent in 2001 and then declined to 5.0 percent in 2003 and further to 4.4 percent in 2005. This was followed by a rise to 4.6 percent in 2008 and then a recent decline to 4.1 percent in 2010 out of an estimated population of 162,265,000. Nigeria is the most populated country in sub-Saharan Africa, a region which carries the globe's heaviest burden of HIV/AIDS.

The most recent HIV Seroprevalence figure represents about 3.5 million people infected with HIV, ranking Nigeria third among the countries with the highest HIV/AIDS burden in the world, next only to India and South Africa. Although the national median prevalence of HIV has taken a downward turn in recent years, the absolute number of people living with HIV has increased by almost half a million people in three years and AIDS related mortality has also slightly increased in the same period to about 217,148 annual deaths attributed to AIDS. (NACA, 2012)

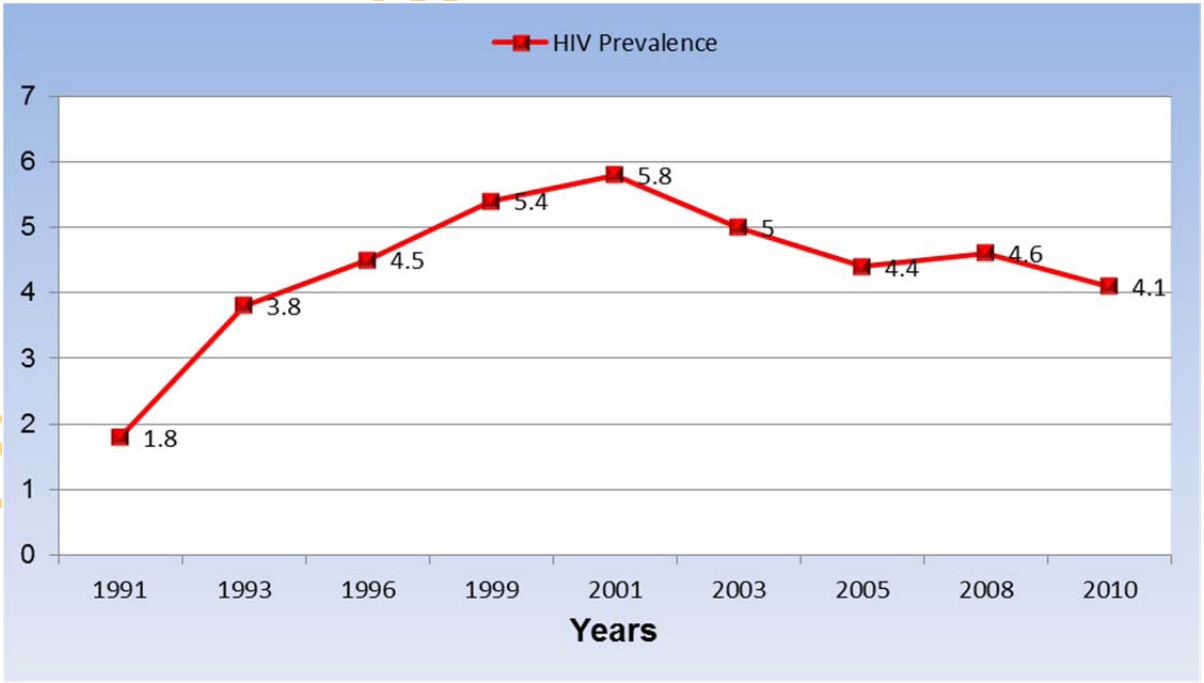
Key drivers of the HIV epidemic in Nigeria include low personal risk perception, multiple concurrent sexual partnerships, intense transactional and inter-generational sex, ineffective and inefficient services for sexually transmitted infections (STIs), and inadequate access to and poor quality of healthcare services. Entrenched gender inequalities and inequities, chronic and debilitating poverty, and stubborn

persistence of HIV/AIDS-related stigma and discrimination also significantly contribute to the continuing spread of the infection. (NACA, 2012)

Also, Sidibe (2010) reported that about 33.4 million people worldwide are infected with HIV and AIDS virus; since AIDS emerged in the 1980s almost 60 million people have been infected and 25 million have died. With these figures, the existence of human race would be wiped out if necessary panaceas are not proffered. Also, Chukwu (2011) asserted that Nigeria presently ranks third in the world's HIV prevalence rate and that this has placed more burdens on the country's health care delivery system.

Although, AIDS is a physical disease, in most instances, its transmission and spread is dependent on the volitional behaviours of people (Word, Hardy & Drotman 1987). For this reason, the role of behaviour change and psychosocial efforts in checking its spread are very important because individuals who contract HIV infection do so through participating in behaviours that involve intimate contact with HIV infected bodily fluids such as blood, semen and vaginal secretions (Friedland & Klein, 1987). The importance of preventive efforts through behaviour change is therefore very important. (Osborn 1986).

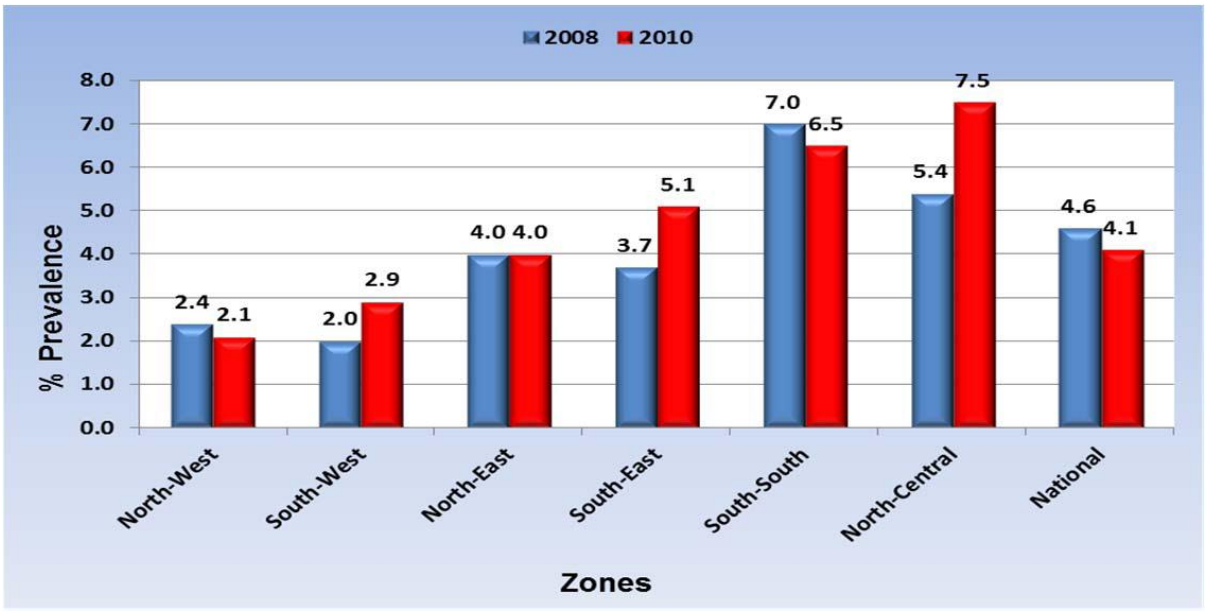
Table 1: HIV Prevalence rate in Nigeria (1991-2010)



Source: NACA, 2012.

The plot above shows that the highest prevalence rate of 5.8 was recorded in 2001 and despite a slight reduction to 4.1 in 2010; it is still a far cry from the 1.8 recorded in 1991 considering the increase in population within the period under consideration.

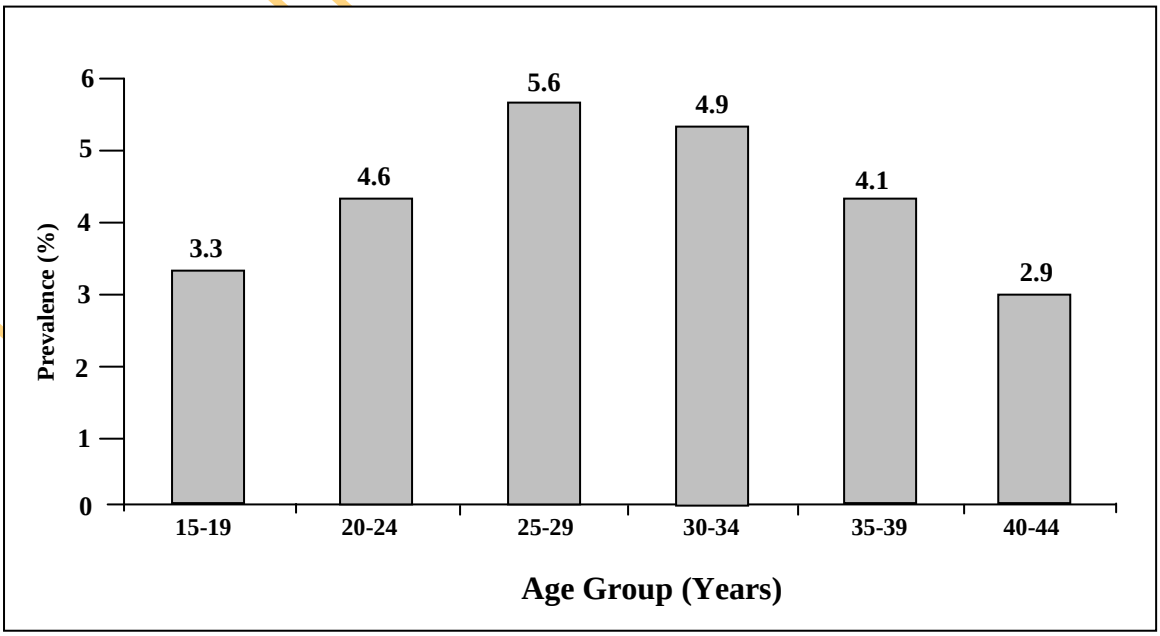
Table 2: HIV prevalence by geopolitical zone



Source: NACA, 2012.

Table2 above shows that the prevalence rate is higher in the North-Central geopolitical zone followed by the South-South while the North-west and the South-West ad the least.

Table 3: HIV Prevalence by age in Nigeria



Source: NHSS 2010 sentinel

Table 3 above shows that the prevalence rate is high among individuals who are between the ages of 15 and 29. This indication portends a serious threat to the national economic wellbeing because the age bracket represents the bedrock of the productive segment of the national population. Of the more than six billion people in the world today, one billion are between the ages of 15-24. Half of the population of sub-Saharan Africa is under 18 years of age. One third of those living with HIV/AIDS in the region are between the ages of 15-24 (UNAIDS, 2002). Unless there is a global commitment to decreasing the incidence of this contagion in this region of the world, Africa may remain the reservoir for HIVAIDS transmission in the foreseeable future. According to Soyinka (2002), age groups 15-19 are the most critical ages of development, productivity and natural expectation and this age group determines the direction and future of any nation.

Among adolescents, the use of alcohol and illicit drugs has been proposed in some studies as a contributing factor to sexual risk taking, whereby substance use impairs individuals' judgment and decision making and increases teens' risk for unintended pregnancies and sexually transmitted infections. Teens who become involved with tobacco and alcohol at a young age are more likely to associate with friends who have sexually permissive attitudes and behaviours compared to both males and females with no drug history. (Ozer, Brudis, Millstein, Knopf & Irwin, 1997; Moore, 1995).

A dearth of knowledge about HIV/AIDS etiology among young people globally, constitutes a major challenge to the control of this scourge. This is coupled with serious misconceptions about HIV and how it is transmitted which are sometimes strengthened by cultural myths that prevent young people from accessing vital sexual information. (UNAIDS, 2002).

Esere (2006) reported that in most African countries, Nigeria in particular, matters relating to sex is traditionally a very private subject as discussion of sex with teenagers is often seen as inappropriate. Until recently, there was little or no sexual health education for young people and this has been a major barrier to reducing rates of HIV and other sexually transmitted diseases among adolescents.

Olaseha & Alao (1993) stated that adolescents, being sexually active, need to be provided with adequate information and message on HIV/AIDS prevention and control. Since they are most likely to contract the disease and spread it rapidly, many studies

seem to support this assertion. For instance, Dubois– Arber, Lehman and Hauser (1988) in a study of 12,000 adolescents aged 16-20years in vocational training institutions across Nigeria found that 18% had occasional sexual intercourse. The researchers also reported that in a study conducted among secondary school students aged 14-19 years in Lagos, Nigeria, it was revealed that 68% of the study population did not believe that they could be infected with HIV.

UNAIDS (2008), revealed that only 18% of women and 21 % of men between the ages of 15 and 24 correctly identify ways to prevent HIV, coupled with lack of accurate information about sexual health which has led to many myths and misconceptions about sex and HIV. All these contribute to increasing transmission rates as well as stigma and discrimination towards people living with HIV/AIDS

In addition, a study by Offor, Ogbeide and Unigbe (1998) to determine the prevalence of HIV/AIDS among adolescents in Benin, Nigeria, showed that 10% of adolescents aged between 13 and 15years had at one time or the other been treated for sexually transmitted diseases. Incarcerated adolescents had their pre-incarceration background in the larger society. As such, the prevalence of HIV and other sexually transmitted diseases among adolescents in the larger society might be a reflection of its prevalence among incarcerated adolescents.

Akinboye (2004) reported that studies conducted in Nigeria, Kenya, Brazil and Hungary, showed that more than 25% of boys aged 15-19 had engaged in sexual activity before the age of 15. The risk for HIV transmission is not only linked to the fact that young people are having sex, but also to their lack of the knowledge and skills they might use to protect themselves. Lack of creative ideas and lack of innovation to turn their ideas to usable forms of sexual health are terrible deficiencies that make the youngsters very much vulnerable. Lack of experience make many young people to believe that they are so much free from danger and risk that they do not bother about precautions against HIV/AIDS/STI risks.

Bakare (2002), in a research, found out that adolescents in southwestern Nigeria have their first coital experience at 16.5 years among males and 17.8 years among females. The research further revealed that 74.6% of adolescents are sexually active and majority of the sexually active adolescents were not knowledgeable about sexual education .About 97% among female adolescents and 96% among male adolescents claimed that if pressurized to carry out HIV test, they would prefer to give a false

identity about their persons and addresses in order to save themselves from social inequity such as social stigma and discrimination among colleagues.

Further, it was found out that adequately informed adolescents were less sexually active than their scarcely informed counterparts and that the more friendly the providers of family health care are, the more realizable the intervention among adolescents. Also, adolescents are likely to be influenced by their religion, monthly income, parental living arrangement, educational level on sex-related issues and the correlates of significant socio-demographic variables to adolescent sexuality.

According to the World Health Organization (2011), it is increasingly clear that adolescents and youths must be at the centre of prevention and management strategies to control HIV/AIDS/STI epidemic. The global population is over six billion. Of this, one billion people are between the ages of 15 and 24, just beginning their reproductive years. This figure is the largest for youngsters in history. Most young people live in developing countries least able to meet their needs for education as well as sexual reproductive healthcare services that can prevent HIV infection. Biological, physical, emotional, economic, social, cognitive and psychological attributes of adolescence make young people particularly vulnerable to HIV and other sexually transmitted infection (STIs).

UNAIDS (2001) report reveals the prevalence of HIV/AIDS among adolescents; The report disclosed that Nigerian adolescents as early as 13years old engage in risky sexual behaviour by practicing premarital sexual activities, having multiple sex partners and constantly having contact with commercial sex workers. Larson (2000) stated that adolescents have the problem of how to satisfy the natural sex urge and at the same time behave in a normally approved manner. The problem of maintaining chastity until marriage is as serious for the boys as it is for the girls.

Dada, Olaseha and Ajuwon (1998) carried out an exploratory study among unmarried female trade apprentices in Ikorodu, a Yoruba town in south-western, Nigeria, to identify sexual risk behaviours, assess knowledge on HIV/AIDS, and recommend an appropriate AIDS education program. Four focus groups were conducted to gain insight into the social-cultural and economic factors influencing sexual risk behaviours, followed by a survey involving 280 randomly selected respondents. Findings showed that many group discussants approved of premarital sex

and believed that sex with multiple partners occurred mainly because of the economic difficulties encountered by female apprentices. Most of the survey respondents (70.9%) were sexually experienced, with age of first sexual intercourse ranging from eleven to twenty-two years, One hundred and fifty-five (78.2%) were sexually active. Of these, 37.4 percent said that their last sexual encounter occurred because they could not resist the pressure put on them by their male partners, either because they were under the influence of alcohol, were in need of money, or were raped. Sixty percent of the sexually active respondents did not take any action to prevent STD or pregnancy during their last sexual encounter. Of the fifty-eight who did, 37.9 percent used condom. Those sexually experienced (45.3%) have had at least one STD symptom in the year before; half of them did not do anything about their condition; 37 percent practiced self-medication or received injections from quacks. Although 70.9 percent had heard about AIDS, many had limited knowledge about the nonsexual routes of HIV transmission.

The United States' Centre for disease control (2012) reported that many young people engage in sexual risk behaviour that can result in unintended health outcomes. For example, among U.S. high school students surveyed in 2011, 47.4% had never had sexual intercourse, 33.7% had had sexual intercourse during the previous 3 months and of these, 39.8 did not use a condom the last time they had sex; 76.7% did not use birth control pill, 15.3% have had sex with four or more people to date.

However, in the views of Diclemente and Peterson (1994), since HIV is largely transmitted through sexual contact and the sharing of drug-injecting equipment, it can be prevented through appropriate behavioural changes. In the same vein, Esere (2008) examined the effect of sex education programme on at-risk sexual behaviour of school-going adolescents in Ilorin, Nigeria and reported that when the treatment (intervention) group was compared with the control group, there were significant differences in at-risk sexual behaviours of the two groups. Those in the intervention group reported less at-risk sexual behaviours than their counterparts in the control group hence the need to further carry out intervention programmes that can foster HIV risk-protective behaviours among adolescents in correctional institutions.

HIV-risk Behaviours in Remand Centres

According to the Nigerian Remand Centres act (1962), the objective of establishing remand centres is to bring to bear every good influence which may establish in the inmates the will to lead a good and useful life on release. However, there are growing concerns on the capability of these centres to carry out this important role. Adeboye (2007) observed that criminals are sent to prisons with the hope that their deviant behaviours would be corrected but rather than change for good, many of them become more hardened in the prison.

Various unwholesome activities occur among inmates which make them vulnerable to HIV infections. Such activities include sharing of needles among injection drug users (IDU), homosexuality , sharing of sharp objects such as blades, clippers and others as well as reported cases of biting whenever they are engaged in physical combat among themselves. These inadequacies in the system have exposed the inmates to psychological and health risks including HIV/AIDS.

According to the Federal Ministry of Health (2008), HIV is a serious health threat for those incarcerated and prevalence among inmates is considerably higher; this increased risk is believed to be due in part to lack of HIV prevention, care, support services and the occurrence of unprotected sex and other risky behaviours among inmates.

With careful examination of the present condition of the Nigerian Remand Centres, there is no gainsaying the fact that inmates might be at risk of HIV/AIDS transmission and attempts must be made to go beyond awareness campaign to extensive training that can foster risk-protective behaviours. Dolan (2008) noted that inmates in correctional settings are failed risk – takers, and most of those usually considered to be very sexually active, come from disadvantaged background and have low levels of education. Thus, incarceration may not be a barrier for sexual activity. This is in harmony with the findings of Ajayi and Okopi (1998) that the risk of HIV infection for any individual depends on performance of risk behaviour in an environment where HIV is present.

Factors shaping sexual motivation and behaviour differ in strength across species, but they often include a combination of the individual's physiology, learned behaviour, the physical and social environment. (Bernstein, Penner, Clarke – Stewart & Roy, 2006).

On this premise adolescents in remand centres are at a higher risk because their incarceration portends a desire to seek self–devised means of emotional adjustment by engaging in risky behaviours (including sexually risky behaviours) with the attendant consequences. Also, worthy of mentioning in this self – devised "emotional escape" is the influence of peers which serves as a major pivot upon which these risk – taking behaviours rest. Irwin and Millstein, (1986), Jessor and Jessor, (1977), Billy and Udry, (1991), Boyer and Kegeles, (1991) emphasize the role of peers and peer influence on the onset of risk – taking behaviour .In early adolescence, increased identification with the peer group serves to fulfil needs for separation from parents. At the same time, this identification may provide increased pressure to take risks.

Maruschak (2005), reported that HIV/AIDS has a disproportionate impact on incarcerated populations, with prevalence among inmates more than three times higher than the general population and that the presence of HIV-infected persons and those at high risk of infection in the correctional system is a critical challenge to both the correctional health system and the public health community. This challenge offers unique opportunities to reach these high-risk individuals and engage them in HIV prevention, treatment and care.

Hammet (2006) also reported that the prevalence of HIV and other infectious diseases is much higher among inmates than those in the general community and the burden of the disease among inmates is disproportionally heavy.

According to Ikuteyijo and Agunbiade (2008), the existence of HIV in correctional settings is not new and inmates' risky practices have been established in Nigeria. Generally, the neglect of the inmates' population may be a reflection of the penal policy of the country, which emphasizes punishment and retribution at the expense of reformation and rehabilitation of offenders. If the nation must meet the Millennium Development Goal of eradicating HIV/AIDS, then reforms in the criminal justice system must take into cognizance the penal philosophy, which guarantees the well-being of inmates in line with global developments.

In a study carried out in some selected correctional centres about HIV/AIDS in Nigeria, especially as it has to do with the handling of inmates, Ikuteyijo and Agunbiade (2008) also reported that generally, the level of awareness of HIV/AIDS among inmates was very low and this is not unconnected with the fact that HIV/AIDS

campaign is not given as much attention as it is given among those outside such centres. They observed that although radio has been established as the most effective medium of mass mobilization on awareness of HIV/AIDS, the prison authorities do not permit inmates to have access to one and do not even make provisions for a central radio system in such places. Though this may seem as an unnecessary luxury for inmates but it would help realize the aim of enlightening the inmates' population.

The study also revealed that some of the officers handling the inmates were not better aware of HIV than some of the inmates. This was demonstrated by the seeming ignorance of the Chief Wardress of one of the centres who did not know the implication of inmates sharing the same razor in cutting their nails as long as the inmates made use of the razors under her "watchful" eyes. This finding corroborates the finding of an earlier study by Iwoh (2004), who reported that there was low knowledge of HIV/AIDS/STIs among prison staff in Nigeria. The study also revealed that most of the inmates' knowledge of HIV/AIDS is limited to sexual intercourse with the opposite sex. Interestingly, many of them were unaware that homosexual acts, unscreened blood transfusion, sharing of sharp instruments as well other risky practices are as risky as sexual intercourse. Moreover, the fact that such acts as homosexual, tattooing and sharing of blades are common practices among inmates which expose them to HIV/AIDS calls for an urgent need for interventions that can promote HIV risk-protective behaviours among such population.

2.2.1 Causes of HIV/AIDS Prevalence Among Adolescents

According to Odebunmi (1990), Abu and Akerele (2006), some of the major factors considered as the predicators of HIV/AIDS transmission among adolescents are from various sources. Consequently, they were of the opinion that the ethnology of factors responsible for the prevalence of HIV/AIDS among adolescent is deeply rooted in the following:

* Substances and alcohol abuse
* Low socio – economic background
* Peer group influence
* Sexual abuse
* Effects of unwholesome mass media
* Unstable housing arrangements
* Inadequate knowledge of contraception

* Sexual promiscuity
* Risky sexual behaviour

2.3 Adolescent Sexuality

According to Falaye (2001), the period of life known as "adolescence" is a unique one; unique in the sense that it is a period of rapid changes. These changes are not only physical but are also emotional and social in nature. Steinberg (1996) contended that the boundaries of adolescence are biological, which begins with puberty and ends with the ability to sexually reproduce; emotional, which begins with detachment from parents and ends with the attainment of a separate sense of identity. The cognitive boundary begins with the emergence of advanced reasoning abilities and ends with the consolidation of these abilities; interpersonally, adolescence begins with the shift of interest from parents to peers and ends with the development of a capacity for intimacy with peers.

Adolescents are in the genital stage of Freud's psychosexual stage of development. Adolescence is an important stage for the development of human sexual attitudes and behaviour and due to hormonal changes, there is an increase in adolescent sex drive, and puberty signifies sexual maturity of the adolescent. Eriksson (1982) posits that sexual maturity is a central aspect in the identity achievement of adolescents-feeling and acting like an adult or being recognized as one.

The period of adolescence is a time when young people are physically capable of reproducing and cognitively aware enough to think about their sexuality. Two factors, how they are educated regarding sex and how they are exposed to sexuality, will establish if they do or do not develop a healthy sexual identity. Also, at this stage, adolescents are in search of knowledge on this subject, if adults do not provide accurate information, they (adolescents) are forced to rely on their peers or other potentially inaccurate sources. (Huebner 2009)

Elkind (1994) asserted that adolescents often have many alternatives and solutions to problems in their minds, but due to their inexperience, they do not have the strategies to know which alternative to choose and this may lead them to take wrong decisions on sensitive issues.

Also, Falaye (2001) stated that some of the adolescents' sexuality problems include:

- Early teenage sexual practices, resulting in teenage pregnancy and parenthood. Consequences are the negative effect of early childbearing. These include not being able to complete school, not finding a stable job, not being able to enter into a stable marriage and not being able to enjoy equal job status or income with peers through out their lifetime.
- Poor contraceptive practices – which are the main causes of teenage pregnancies. Many adolescent have little knowledge about contraception and irregular contraceptive use is common among those who even practice any form of contraception at all. (Brooks – Gunn and Furstenberg 1989).
- Teenage abortion practices especially by unqualified medical personnel abound and those who decide to keep their babies often have their fantasies about motherhood dashed after the baby is born (Seifert and Hoffnung 1991); and
- Children who are teenage mothers are likely to suffer developmentally and are likely to need to do more adjustment socially. (Seifert and Hoffrung 1992). Parenting competence of teenage mothers is low, as they are still children themselves. They tend to concentrate on their own developmental needs rather than those of their offspring. Falaye (1998) and Falaye and Adesemowo (1998) found that adolescents, in spite of the cultural milieu they find themselves, perceive a need for sexuality education and their information on sexuality comes from peers rather than parents or other siblings. The contention on what is to be taught and who to teach it, as far as a formal sexuality education curriculum in schools is concerned, is also a major source of worry for parents (Falaye and Moronkola, 1999).

2.4 Theoretical Background

Theories on Adolescents Sexual Behaviour

Health care providers, researchers, educators, and policy makers have shown substantial interest, over the past two decades, in understanding *why* adolescents initiate sexual intercourse or other risky sexual behaviours at progressively early ages. Understanding what motivates youth to initiate sexual activity prematurely allows providers and educators to develop more effective interventions attending both to these motivations and to the teenagers who exhibit them (Buhi and Goodson, 2007).

There are divergent reasons on why people engage in sexual intercourse as well as the meaning people ascribed to sexual behaviours According to UNESCO/UNAIDS (2000), to fully understand the sexual behaviour of adolescent boys and girls, an understanding of the different models of sexual behaviour and the various intrinsic and extrinsic factors that impact on it need to be examined. Below are some of the most common theories on adolescents' sexual behaviour.

Behaviour theories

This model suggests that adolescents act based on their knowledge of a particular problem, and of a potential behavioural "solution" to the identified problem. Behavioural intention is seen as a product of the adolescent's attitude towards the behaviour, perceived subjective norms, and self efficacy in performing a particular behaviour. In the presence of these predicators of sexual behaviour, behavioural intention is highly predictive of actual behaviour if the adolescent has the necessary skills to perform the behaviour, and in the absence of any environmental constraints (Hargreaves, 2002).

Social theories

These theories highlight the ways in which communities adopt behaviours, taking the emphasis away from solely individual determinants of behaviour. These theories point to the fact that the peer group one identifies with has a significant impact on one's sexual behaviour. The social network theory points specifically to the fact that by definition, sexual relationships involve more than one person, pointing to another layer of factors, including gender and power that can affect adolescents' sexual behaviour (UNAIDS, 1999).

Structural and environmental theories

According to these theories, individual and social factors may explain some patterns but cannot explain all the variations in behaviour. Public policy and community level factors that affect the environment in which adolescents make decisions about sexual behaviour can be more or less supportive of certain types of behaviour they exhibit.

Socio-economic factors within the society have also been identified as having an important bearing on facilitating certain types of protective or risk-related

behaviours among adolescents. They may affect the opportunity for, timing of and patterns of behaviours, such as sexual, social, health seeking, or recreational behaviours that can impact on the risk of HIV infection (Sjoberg, 2000).

2.4.1 Theoretical Framework for the Study: Theory of reasoned action (TRA)

The theory of reasoned action (TRA), developed by Martin Fishbein and Icek Ajzen (1975, 1980), derived from previous research that started out as the theory of attitude, which led to the study of attitude and behaviour. The theory was "born largely out of frustration with traditional attitude-behaviour research, much of which found weak correlations between attitude measures and performance of volitional behaviours" (Hale, Householder, & Greene, 2003, p. 259). The key application of the theory of reasoned action is prediction of behavioural intention, spanning predictions of attitude and predictions of behavior. The subsequent separation of behavioural intention from behaviour allows for explanation of limiting factors on attitudinal influence (Ajzen, 1980).

The theory of reasoned action proposes that wilful behaviour is predicted by an individual's intention to perform behaviour. The intention to perform action is influenced by two forces: (1) attitude towards performance of behaviour (e.g. whether engaging in the behaviour is considered good or bad) and (2) the individual's belief in the subjective norms that dictate societal expectations regarding that behaviour (e.g. what the individuals believe family and friends think they should do). Furthermore, attitudes and subjective norms are each comprised of two components. Attitudes towards the specific behaviour is a function of the individual's set of beliefs concerning the possible consequences for taking the action, weighted by an evaluation of the importance of the outcome. Subjective norms are determined by an individual's beliefs about what salient others (e.g. family and friends) think he or she should do regarding the behaviour, weighted by the individual's motivation to conform to others wishes (Brindis, Sattley & Mamo, 2005)

Derived from the social psychology setting, the components of TRA are three general constructs: behavioural intention (*BI*), attitude (*A*), and subjective norm (*SN*). TRA suggests that a person's behavioural intention depends on the person's attitude about the behavior and subjective norms ($BI = A + SN$). If a person intends to do a

behaviour then it is likely that the person will do it. Behavioral intention measures a person's relative strength of intention to perform a behaviour. Attitude consists of beliefs about the consequences of performing the behaviour multiplied by his or her valuation of these consequences. Subjective norm is seen as a combination of perceived expectations from relevant individuals or groups along with intentions to comply with these expectations. In other words, "the person's perception that most people who are important to him or her think he should or should not perform the behaviour in question" (Ajzen and Fishbein, 1975). To put the definition into simple terms, a person's volitional (voluntary) behaviour is predicted by his/her attitude toward that behaviour and how he/she thinks other people would view them if they performed the behavior. A person's attitude, combined with subjective norms, forms his/her behavioural intention.

Fishbein and Ajzen say, though, that attitudes and norms are not weighted equally in predicting behaviour. "Indeed, depending on the individual and the situation, these factors might be very different effects on behavioural intention; thus a weight is associated with each of these factors in the predictive formula of the theory. For example, you might be the kind of person who cares little for what others think and if this is the case, the subjective norms would carry little weight in predicting your behaviour" (Miller, 2005, p. 127).

In addition to the above, Miller (2005) defines each of the three components of the theory as follows and uses the example of embarking on a new exercise program to illustrate the theory:

Attitudes: the sum of beliefs about a particular behaviour weighted by evaluations of these beliefs. You might have the beliefs that exercise is good for your health, that exercise makes you look good, that exercise takes too much time, and that exercise is uncomfortable. Each of these beliefs can be weighted (e.g., health issues might be more important to you than issues of time and comfort).

Subjective norms: Look at the influence of people in one's social environment on his/her behavioural intentions; the beliefs of people, weighted by the importance one attributes to each of their opinions, will influence one's behavioural intention. You might have some friends who are avid exercisers and constantly encourage you to join

them. However, your spouse might prefer a more sedentary lifestyle and scoff at those who work out. The beliefs of these people, weighted by the importance you attribute to each of their opinions, will influence your behavioural intention to exercise, which will lead to your behaviour to exercise or not exercise. Adolescents' cognitive development gives them a new degree of social awareness and the capacity to make moral judgements. Early in adolescence, an individual becomes capable of thinking more intensely about their own thoughts. This, in turn, makes them think about what other people think and feel about them. As cognitive abilities increase and mature, adolescents think about what their feelings and ideas of what an ideal world are and often criticize their parents, school, society and their own inadequacies.

Behavioural intention: a function of both attitudes toward a behaviour and subjective norms toward that behavior, which has been found to predict actual behaviour. Your attitudes about exercise combined with the subjective norms about exercise, each with their own weight, will lead you to your intention to exercise (or not), which will then lead to your actual behavior.

The theory of reasoned action has "received considerable and, for the most part, justifiable attention within the field of consumer behaviour...not only does the model appear to predict consumer intentions and behaviour quite well, it also provides a relatively simple basis for identifying where and how to target consumers' behavioral change attempts" (Sheppard, Hartwick, & Warshaw, 1988, p. 325).

Hale, Householder, & Greene, (2003) say the TRA has been tested in numerous studies across many areas including dieting (Sejwacz, Ajzen, & Fishbein, 1980), using condoms (Greene, Hale, & Rubin, 1997), consuming genetically engineered foods (Sparks, Shepherd, & Frewer, 1995), and limiting sun exposure (Hoffman, 1999).

2.5 Motivational Interviewing

According to Fader (2010) motivational interviewing is a technique that was developed by psychologists Bill Miller and Steve Rollnick. One definition of motivational interviewing is that it focuses on the provision of accurate, non-judgemental feedback regarding a client's risks and experience of health-related problems, while avoiding labels, confrontation and specific interviewer-generated goals for client behaviour change.

In the Motivational interviewing approach, clients are assumed to be in a state of ambivalence that can best be resolved by highlighting discrepancies between perceived risk and actual experience of cognitive consequences. The clinician identifies the difference in where the clients are and where they would like to be. Through careful listening and the reflecting of 'change talk', the clinician provides the client the opportunity to explore a path toward change.

Motivational interviewing (MI) is also a brief treatment model designed to help clients who are low in motivation change—to help them wake up to the need to change certain problematic behaviours—those that are health threatening. Motivational interviewing appears consistent with a number of models of health behaviour such as locus of control, theory of reasoned action, Social cognitive theory, Decisional Balance, Health belief model, Health action process model, self determination theory and self regulatory model. All of these models, despite differences in their terms and emphasis, share three common constructs which are the focus of motivational interviewing. These are the patient's expectations about the consequences of engaging in the behaviour, the influence of, or beliefs about, personal control over the behaviour and the social context of the behaviour (Van-Wormer, 2009)

Motivational Interviewing may seem simple on the surface, but it is a very sophisticated modality based on advanced research knowledge from social psychology. MI is based on knowledge about how an individual's motivation to change can be enhanced by a practitioner, even when the client is reluctant to make any changes in his or her behaviour (Gance-Cleveland, 2005).

Motivational Interviewing offers specific reinforcing manoeuvres for every step of the way as the client advances, often in a spiraling fashion, toward change. Closely paralleling the strengths perspective in its underlying premises, motivational interviewing can be viewed as a developmental model in the spirit of the work of Erik Erikson (1950) and Carol Gilligan (1982). Like theirs, this model is stage-based or sequential. Unlike their formulations, however, MI is geared to direct practice; it is at once a theory and a therapy (Van-Wormer, 2009).

Motivational interviewing is defined by Miller (2006) as "a person-centred, goal-oriented approach for facilitating change through exploring and resolving ambivalence". This term is most commonly used to represent a series of pragmatic strategies tailored to the client's level of willingness to adjust his or her behaviour (for example, to comply with a medical regimen, reduce criminality, or for smoking

cessation (Miller & Rollnick, 2002). These strategies have also been applied with favourable results in batterer intervention programming (Bennett, Stoops, Call & Flett, 2007).

2.5.1 Theoretical antecedents of Motivational Interviewing

The concept of motivational interviewing was first described by William R. Miller (1983) in the literature and elaborated by Miller and Rollnick (1991). Miller (1996) credited the formulation of MI to the relentless, spirited questioning by his student interns in Norway as he demonstrated how he would work with clients in various settings. The kind of questioning that ensued, ("Why have you taken this approach rather than another?"); this, according to Miller, required him to

> *"make explicit the approach I had learned from my clients"*
> *The result was a beginning conceptual model that was followed by years of testing and refinements, which culminated in the groundbreaking text Motivational Interviewing: Preparing People to Change Addictive Behavior* (Miller, 1991 p835).

With characteristic modesty, Miller and Rollnick later stated, "There is little that is highly original in motivation interviewing". For their inspiration, Miller and Rollnick credit the theoretical contributions of Carl Rogers and his students who developed the principles on which client-centred psychotherapy was based. The development of motivational theory took a major leap forward when it absorbed the notion that behaviour change occurs in increments or stages and that it involves specific tasks related to the degree of an individual's willingness to change (DiClemente & Velasquez, 2002). The impetus for theoretical advance came with the publication of the research on smoking cessation conducted by Prochaska and DiClemente (1982). Called the Trans theoretical model, because it was interdisciplinary, the stages-of-change approach revealed the thinking patterns of smokers who eventually were able to quit. Their thinking was found to progress from precontemplation, before they were ready to change, to contemplation to quit, to preparation for action, to action, to maintenance, to possible relapse, and so on. Specific interventions have now been spelt out to match the client's stage of readiness to move from a refusal to cooperate to a decision to work on his or her problems (Van-Wormer, 2009).

Two developments in the United States promoted the advocacy of motivational therapy. The first was cross-fertilization of knowledge through international conferences on substance misuse. Through such exchanges, American social scientists began to grow familiar with principles of motivation and teach these concepts to their students. A second major development came with one of the most massive and best-publicized research experiments in substance abuse treatment history called matching alcoholism treatment to client heterogeneity (Project MATCH).

2.5.2 Motivational Theory

Motivational strategies, to reiterate, are built on sophisticated understandings of human behaviour in the social environment (HBSE), most of which have been confirmed through real-life experimentation. The theoretical foundation of Motivational Interviewing is first and foremost the knowledge that people often modify their behaviour as a result of their interaction with others. A related assumption is that therapists who possess critical counselling skills can help facilitate personal change in their clients. Research indicates, for example, that one such skill, counsellor empathy, can be a significant determinant of clients' response to treatment (Miller &Rollnick, 2002).

As defined by Rogers, accurate empathy involves skilful reflective listening that clarifies and amplifies a person's presentation of reality. Unlike Rogers' extensive use of reflective listening, however, Miller and Rollnick's practice is to offer advice in terms of providing "a menu" of options. Also, in contrast to Rogers' client-centred approach, motivational therapists use a cognitive approach to help clients see the discrepancy between their goals and present behaviour (developing discrepancy is the second principle above).

Miller and Rollnick (2002) also stated that reinforcement of the clients' sense of confidence in their ability to overcome difficulty (fourth principle above) is a combination of the use of positive listening skills and reframing thoughts in a healthier direction; a cognitive-based strategy (Van Wormer & Davis, 2003). Through establishing a close therapeutic relationship, the counsellor can help a person develop a commitment to change.

The way motivational theory works, simply put: If the therapist can get the client to do something, anything, to get better, this client will have a chance at success. The effectiveness of motivational strategies in eliciting change in even the most

recalcitrant of people is worthy of closer analysis. Actually, the effectiveness of this model of person-centred counselling should come as no surprise, as each of the basic principles is derived from strategies that have been shown to be effective in social psychology laboratory situations. The overall technique of eliciting in the client self-motivating statement is perhaps the most basic of these scientific insights.

A relatively recent advancement in the field of treating addictions, Motivational Interviewing is a client-centred, directive, and explicitly, an egalitarian treatment approach. In an effort to foster an open exchange between the therapist and the client, Motivational Interviewing actively incorporates a collaborative relationship by emphasizing the Client's self-efficacy, and the overall responsibility of the client to determine his or her own life goals. Motivational Interviewing is firmly rooted in the transtheoretical model of change proposed by Prochaska and DiClemente, (1986). In the trans theoretical model, individuals vary with regard to change "readiness" by moving though instinct stages including pre-contemplation, contemplation, determination (or preparation), action, maintenance, and relapse. For example, an individual in the pre-contemplation stage would be described as not considering change.

On the other hand, a person in the "action" stage would be actively employed in an effort to reduce his or her drinking or drug use. Importantly, this is the area in which there is often treatment incongruence between providers and clients. Health care providers are frequently in an "action-oriented" state of mind while clients entering treatment are frequently contemplating change, or worse, in pre-contemplation. The result of such incongruence is reflected in the all-too-common scenario in which the health care provider is pushing the client to change as though he or she were in an action phase when, in fact, the client may have substantial ambivalence to do so. As Miller and Rollnick (1991) point out, such a "persuading" on the part of the treatment provider will frequently result in the client becoming defensive and possibly more ambivalent. Obviously, such an outcome is counter-productive to the therapeutic process, and frustrating to all involved. .

Motivational interviewing is based on four primary principles designed to avoid the persuasion dilemma that occurs when action-oriented providers encounter clients in the contemplation stage of change (Miller and Rollnick, in press). The four principles of MI are: 1) Express empathy, 2) Develop discrepancy, 3) Roll with resistance, and 4) Support self-efficacy. By employing these principles, MI represents a focused response

to ambivalence in the crucial stages of contemplation and determination and may also be useful if ambivalence recurs further along in the change process. By relating to the client in a way that is both respectful and empathic, the provider facilitates an environment of mutual trust. By adopting a collaborative, stage-sensitive style, the provider is less likely to elicit resistance from the client and more likely to stimulate open, honest communication. More importantly, variations within client gender, ethnicity, and socioeconomic status do not appear to affect (or predict) outcomes in studies of motivational interviewing (MI) (Brown & Miller, 1993; Miller, Benefield, & Tonigan, 1993; Miller, Sovereign, & Krege, 1988; Smith, Heckemeyer, Kratt, & Mason, 1997), indicating that MI can be utilized as an appropriate clinical intervention for most Clients.

2.5.3 Principles of Motivational Interviewing

According to Miller and Rollnick (2001) the following are the guidelines which a Therapist follows in carrying out motivational interviewing:

Expressing Empathy

Motivational Interviewing is based heavily on the client-centred work of Carl Rogers (1957, 1961). In his approach, Rogers focused on the client's awareness of their own thoughts and abilities in an effort to increase confidence in, and reliance on their own decision-making skills. For Rogers, the client was the expert on how to make changes for him or herself and he facilitated this process through the use of three primary therapist "qualities" that included acceptance, positive regard, and genuineness-in-essence, the core of empathic responding. The fact that numerous studies have found therapist empathy to be one of the most reliable predictors of outcome speaks to the importance of Rogers' work and highlights the existence of one of the most reliable of all common factors in psychotherapy (Beutler, Machado, & Neufeldt, 1994; Lafferty, Beutler, & Crago, 1989; Truax & Carkhuff, 1967).

Within the context of MI, empathy carries a very specific meaning. Rather than feeling sympathy, relating to similar experiences, or even agreeing with Clients, empathy is defined as "The ability of the provider to accurately reflect what the client is saying (Moyers, 2000). Truly empathic responding, therefore, requires that clinicians employ active listening skills.

Developing Discrepancy

The second principle of MI is that of developing discrepancy. The process of developing discrepancies between maladaptive behaviour and other more valued aspects of one's life is intimately related to the Client's values and belief systems. Specifically, the goal is to elicit from the individual those aspects of his or her life that are important and at odds with current behavioural patterns. For example, a Client may state that he really looks forward to drinking with his friends several nights a week to relieve stress. However, in an earlier statement, he also revealed how much he enjoys reading to his children at bedtime. In a situation like this, the therapist might offer what is called a double-sided reflection such as, "On the one hand you really look forward to blowing off steam with your friends at the bar, and spending that time with your kids each night seems really important to you as well." In developing discrepancy, it is important for the treatment provider to gain a deep understanding of what really matters to the Client both in terms of immediate and long- term life goals. Additionally, understanding value systems is also important. Once the Provider has an adequate understanding of these areas; he or she is equipped to assist the ambivalent Client with the process of clarifying important goals that can play a critical role in sound decision-making.

Rolling with Resistance

Rather than meeting Clients resistance with confrontation, Counsellors are encouraged to utilize reflection in an effort to decrease it whenever possible. For example, when describing her drinking habits a Client might report, "I don't know why my husband complains so much, all I have is a six pack each night when I get home." To which the counsellor might respond, "For you, drinking a six pack isn't a big deal." Additionally, it is often the case that many Clients are remanded to treatment for one reason or another. In such a case, a Client might come right out and say, "I don't need to be here and I'm not happy about being forced to come." The MI therapist might respond with, "I hear you loud and clear, you're not happy about being here and this seems like a waste of your time."

In rolling with resistance, it is often necessary to hear Client express frustrations and even to make ridiculous statements without confronting them directly. Such a style implies that the treatment provider be flexible and willing to "lose the point" in disputes. The interviewer recognizes that resistance typically points out substantial energy that may be harnessed in an effort to explore the reasons for ambivalence. When

clients are resistant, angry, or otherwise needing to make a point, rolling with these episodes increases the likelihood that the Client will remain engaged and potentially more receptive to those aspects of the treatment process that they may, indeed, find helpful. In any case, the choice of what to take and what to leave is always theirs to make.

Supporting Self-Efficacy

The final principle of Motivational Interviewing is to support self-efficacy. Self-efficacy is an important aspect of motivation (Bandura, 1977; 1982) and has proven to be related to positive outcome in substance abuse treatment (DiClemente, 1981; Solomon & Annis, 1990). Specifically, the provider makes a point to encourage the Client based on the abilities and resources that they possess. This may be accomplished in a number of ways. Particularly useful is the technique of examining past successes by the Client to cut back or modify a behavioural pattern. Questions such as, "What worked?" and, "What was it that enabled you to be successful that time?" can be very useful in attempting to discover various strengths and aspects key to success.

Lessons learned from previous relapses are also a rich source of efficacy in the hands of a skilful interviewer. Providers can offer genuine affirmations when Clients share successes. For example, a Client might disclose that he was once able to moderate his drinking for six months by cutting down on the time that he spent with friends at the bar after work in favour of joining an evening volleyball league.

In offering a genuine affirmation of this success, the Therapist might respond by saying "It's wonderful that you were able to reduce your drinking like that". Most people find it challenging to initiate new activities where they don't know many people, but it sounds like that kind of thing is pretty easy for you." Therapist may also find it useful to directly point out the existence of personal assets by saying, "Here's a characteristic of yours that could lead to success. These efforts are important because the Client must be able to imagine that a successful outcome is possible before legitimate attempts at change will be made.

2.6 Self- Efficacy

According to Bandura (1994), perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine

how people feel, think, motivate themselves and behave. Such beliefs produce diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.

A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. They set themselves challenging goals and maintain strong commitment to them. They heighten and sustain their efforts in the face of failure. They quickly recover their sense of efficacy after failures or setbacks. They attribute failure to insufficient effort or deficient knowledge and skills which are acquirable. They approach threatening situations with assurance that they can exercise control over them. Such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression. (Bandura, 1994)

In contrast, people who doubt their capabilities shy away from difficult tasks which they view as personal threats. They have low aspirations and weak commitment to the goals they choose to pursue. When faced with difficult tasks, they dwell on their personal deficiencies, on the obstacles they will encounter, and all kinds of adverse outcomes rather than concentrate on how to perform successfully. They slacken their efforts and give up quickly in the face of difficulties. They are slow to recover their sense of efficacy, following failure or setbacks. Because they view insufficient performance as deficient aptitude, it does not require much failure for them to lose faith in their capabilities. They fall easy victim to stress and depression. (Maddux & Stanley, 1986)

2.6.1 Sources of Self-Efficacy

According to Parajes (2002), Individuals form their self-efficacy beliefs by interpreting information primarily from four sources. The most influential source is the interpreted result of one's previous performance, or mastery experience. Individuals engage in tasks and activities, interpret the results of their actions, use the interpretations to develop beliefs about their capability to engage in subsequent tasks or activities, and act in concert with the beliefs created. Typically, outcomes interpreted as

successful raise self-efficacy; those interpreted as failures lower it. Of course, people who possess a low sense of efficacy often discount their successes rather than change their self-belief. Even after individuals achieve success through dogged effort, some continue to doubt their efficacy to mount a similar effort. Consequently, mastery experiences are only raw data, and many factors influence how such information is cognitively processed and affects an individual's self-appraisal.

In addition to interpreting the results of their actions, people form their self-efficacy beliefs through the *vicarious experience* of observing others perform tasks. This source of information is weaker than mastery experience in helping create self-efficacy beliefs, but when people are uncertain about their own abilities or when they have limited prior experience, they become more sensitive to it.

The effects of modeling are particularly relevant in this context, especially when the individual has little prior experience with the task. Even experienced and self-efficacious individuals, however, will raise their self-efficacy even higher if models teach them better ways of doing things. Vicarious experience is particularly powerful when observers see similarities in some attribute and then assume that the model's performance is diagnostic of their own capability. For example, a girl will raise her perceived physical efficacy on seeing a woman model exhibit physical strength but not after seeing a male model do so. In this case, gender is the attribute for assumed similarity. Observing the successes of such models contributes to the observers' beliefs about their own capabilities ("If they can do it, so can I!").

Conversely, watching models with perceived similar attributes fail can undermine the observers' beliefs about their own capability to succeed. When people perceive the model's attributes as highly divergent from their own, the influence of vicarious experience is greatly minimized. It bears noting that people seek out models who possess qualities they admire and capabilities to which they aspire. A significant model in one's life can help instill self-beliefs that will influence the course and direction that life will take.

Individuals also create and develop self-efficacy beliefs as a result of the social persuasions they receive from others. These persuasions can involve exposure to the verbal judgments that others provide. Persuaders play an important part in the

development of an individual's self-beliefs. But social persuasions should not be confused with knee-jerk praise or empty inspirational homilies.

Effective persuaders must cultivate people's beliefs in their capabilities while at the same time ensuring that the envisioned success is attainable. And, just as positive persuasions may work to encourage and empower, negative persuasions can work to defeat and weaken self-efficacy beliefs. In fact, it is usually easier to weaken self-efficacy beliefs through negative appraisals than to strengthen such beliefs through positive encouragement.

Somatic and emotional states such as anxiety, stress, arousal, and mood states also provide information about efficacy beliefs. People can gauge their degree of confidence by the emotional state they experience as they contemplate an action. Strong emotional reactions to a task provide cues about the anticipated success or failure of the outcome. When they experience negative thoughts and fears about their capabilities, those affective reactions can themselves lower self-efficacy perceptions and trigger additional stress and agitation that help ensure the inadequate performance they fear. Of course, judgments of self-efficacy from somatic and emotional states are not necessarily linked to task cues. Individuals in a depressed mood lower their efficacy independent of task cues.

One way to raise self-efficacy beliefs is to improve physical and emotional well-being and reduce negative emotional states. Because individuals have the capability to alter their own thinking and feeling, enhanced self-efficacy beliefs can, in turn, powerfully influence the physiological states themselves. As Bandura (1997) has observed, people live in psychic environments that are primarily of their own making.

The sources of self-efficacy information are not directly translated into judgments of competence. Individuals interpret the results of events, and these interpretations provide the information on which judgments are based. The types of information people attend to and use to make efficacy judgments, and the rules they employ for weighting and integrating them, form the basis for such interpretations. Thus, the selection, integration, interpretation, and recollection of information influence judgments of self-efficacy. Physiological indicators of efficacy play an especially

influential role in health functioning and in athletic and other physical activities. (White 1982; Wood and Bandura, 1989)

2.6.2 Self-Efficacy Processes

Much research has been conducted on the four major psychological processes through which self-beliefs of efficacy affect human functioning .Bandura (1984) came with the following processes:

A. Cognitive Processes

The effects of self-efficacy beliefs on cognitive processes take a variety of forms. Much of human behaviour, being purposive, is regulated by forethought embodying valued goals. Personal goal setting is influenced by self-appraisal of capabilities. The stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer their commitment to them.

Most courses of action are initially organized in thought. People's beliefs in their efficacy shape the types of anticipatory scenarios they construct and rehearse. Those who have a high sense of efficacy visualize success scenarios that provide positive guides and supports for performance are better than those who doubt their efficacy, visualize failure scenarios and dwell on the many things that can go wrong. It is difficult to achieve much while fighting self-doubt. A major function of thought is to enable people predict events and to develop ways to control those that affect their lives. Such skills require effective cognitive processing of information that contains many ambiguities and uncertainties. In learning predictive and regulative rules, people must draw on their knowledge to construct options, to weight and integrate predictive factors, to test and revise their judgments against the immediate and distal results of their actions, and to remember which factors they had tested and how well they had worked.

It requires a strong sense of efficacy to remain task oriented in the face of pressing situational demands, failures and setbacks that have significant repercussions. Indeed, when people are faced with the tasks of managing difficult environmental demands under taxing circumstances, those who are beset by self-doubts about their efficacy become more and more erratic in their analytic thinking, lower their aspirations and the quality of their performance deteriorates. In contrast, those who maintain a

resilient sense of efficacy set themselves challenging goals and use good analytic thinking which pays off in performance accomplishments.

B. Motivational Processes

Self-beliefs of efficacy play a key role in the self-regulation of motivation. Most human motivation is cognitively generated. People motivate themselves and guide their actions anticipatorily by the exercise of forethought. They form beliefs about what they can do. They anticipate likely outcomes of prospective actions. They set goals for themselves and plan courses of action designed to realize valued futures.

There are three different forms of cognitive motivators around which different theories have been built. They include causal attributions, outcome expectancies, and cognized goals. The corresponding theories are attribution theory, expectancy-value theory and goal theory, respectively. Self-efficacy beliefs operate in each of these types of cognitive motivation. Self-efficacy beliefs influence causal attributions. People who regard themselves as highly efficacious attribute their failures to insufficient effort, those who regard themselves as inefficacious attribute their failures to low ability. Causal attributions affect motivation, performance and affective reactions mainly through beliefs of self-efficacy.

In expectancy-value theory, motivation is regulated by the expectation that a given course of behaviour will produce certain outcomes and the value of those outcomes. But people act on their beliefs about what they can do, as well as on their beliefs about the likely outcomes of performance. The motivating influence of outcome expectancies is thus partly governed by self-beliefs of efficacy. There are countless attractive options people do not pursue because they judge they lack the capabilities for them. The predictiveness of expectancy-value theory is enhanced by including the influence of perceived self- efficacy.

The capacity to exercise self-influence by goal challenges and evaluative reaction to one's own attainments provides a major cognitive mechanism of motivation. A large body of evidence shows that explicit, challenging goals enhance and sustain motivation. Goals operate largely through self-influence processes rather than regulate motivation and action directly. Motivation based on goal setting involves a cognitive comparison process. By making self-satisfaction conditional on matching adopted

goals, people give direction to their behaviour and create incentives to persist in their efforts until they fulfil their goals. They seek self-satisfaction from fulfilling valued goals and are prompted to intensify their efforts by discontent with substandard performances.

Motivation based on goals or personal standards is governed by three types of self influences. They include self-satisfying and self-dissatisfying reactions to one's performance, perceived self-efficacy for goal attainment and readjustment of personal goals based on one's progress. Self-efficacy beliefs contribute to motivation in several ways: they determine the goals people set for themselves; how much effort they expend; how long they persevere in the face of difficulties; and their resilience to failures. When faced with obstacles and failures people who harbour self-doubts about their capabilities slacken their efforts or give up quickly. Those who have a strong belief in their capabilities exert greater effort when they fail to master the challenge. Strong perseverance contributes to performance accomplishments.

C. Affective Processes

People's beliefs in their coping capabilities affect how much stress and depression they experience in threatening or difficult situations, as well as their level of motivation. Perceived self-efficacy to exercise control over stressors plays a central role in anxiety arousal. People who believe they can exercise control over threats do not conjure up disturbing thought patterns. But those who believe they cannot manage threats experience high anxiety arousal. They dwell on their coping deficiencies. They view many aspects of their environment as fraught with danger. They magnify the severity of possible threats and worry about things that rarely happen. Through such inefficacious thinking, they distress themselves and impair their level of functioning. Perceived coping self-efficacy regulates avoidance behaviour as well as anxiety arousal. The stronger the senses of self-efficacy, the bolder people are in taking on taxing and threatening activities.

Anxiety arousal is affected not only by perceived coping efficacy but also by perceived efficacy to control disturbing thoughts. The exercise of control over one's own consciousness is summed up well in the proverb: "You cannot prevent the birds of worry and care from flying over your head. But you can stop them from building a nest in your head." Perceived self-efficacy to control thought processes is a key factor in

regulating thought produced stress and depression. It is not the sheer frequency of disturbing thoughts but the perceived inability to turn them off that is the major source of distress. Both perceived coping self-efficacy and thought control efficacy operate jointly to reduce anxiety and avoidant behaviour.

Social cognitive theory prescribes mastery experiences as the principal means of personality change. Guided mastery is a powerful vehicle for instilling a robust sense of coping efficacy in people whose functioning is seriously impaired by intense apprehension and phobic self-protective reactions. Mastery experiences are structured in ways to build coping skills and instill beliefs that one can exercise control over potential threats. Intractable phobics, of course, are not about to do what they dread. One must, therefore, create an environment so that incapacitated phobics can perform successfully despite themselves. This is achieved by enlisting a variety of performance mastery aids. Feared activities are first modeled to show people how to cope with threats and to disconfirm their worst fears. Coping tasks are broken down into subtasks of easily mastered steps. Performing feared activities together with the therapist further enables phobics to do things they would resist doing by themselves. Another way of overcoming resistance is to use graduated time. Phobics will refuse threatening tasks if they will have to endure stress for a long time. But they will risk them for a short period. As their coping efficacy increases, the time they perform the activity is extended. Protective aids and dosing the severity of threats also help to restore and develop a sense of coping efficacy.

After functioning is fully restored, the mastery aids are withdrawn to verify that coping successes stem from personal efficacy rather than from mastery aids. Self-directed mastery experiences, designed to provide varied confirmatory tests of coping capabilities, are then arranged to strengthen and generalize the sense of coping efficacy. Once people develop a resilient sense of efficacy, they can withstand difficulties and adversities without adverse effects.

Guided mastery treatment achieves widespread psychological changes in a relatively short time. It eliminates phobic behaviour and anxiety and biological stress reactions, creates positive attitudes and eradicates phobic ruminations and nightmares. Evidence that achievement of coping efficacy profoundly affects dream activity is a particularly striking generalized impact.

A low sense of efficacy to exercise control produces depression as well as anxiety. It does so in several different ways. One route to depression is through unfulfilled aspiration. People who impose on themselves standards of self-worth they judge they cannot attain drive themselves to bouts of depression. A second efficacy route to depression is through a low sense of social efficacy. People who judge themselves to be socially efficacious seek out and cultivate social relationships that provide models on how to manage difficult situations, cushion the adverse effects of chronic stressors and bring satisfaction to people's lives. Perceived social inefficacy to develop satisfying and supportive relationships increases vulnerability to depression through social isolation. Much human depression is cognitively generated by dejecting ruminative thought. A low sense of efficacy to exercise control over ruminative thought also contributes to the occurrence, duration and recurrence of depressive episodes.

Other efficacy-activated processes in the affective domain concern the impact of perceived coping self-efficacy on biological systems that affect health functioning. Stress has been implicated as an important contributing factor to many physical dysfunctions. Controllability appears to be a key organizing principle regarding the nature of these stress effects. It is not stressful life conditions per se, but the perceived inability to manage them that is debilitating. Thus, exposure to stressors with ability to control them has no adverse biological effects. But exposure to the same stressors without the ability to control them impairs the immune system. The impairment of immune function increases susceptibility to infection, contributes to the development of physical disorders and accelerates the progression of disease.

Biological systems are highly interdependent. A weak sense of efficacy to exercise control over stressors activates autonomic reactions, catecholamine secretion and release of endogenous opioids. These biological systems are involved in the regulation of the immune system. Stress activated in the process of acquiring coping capabilities may have different effects than stress experienced in aversive situations with no prospect in sight of ever gaining any self-protective efficacy. There are substantial evolutionary benefits to experiencing enhanced immune function during development of coping capabilities vital for effective adaptation. It would not be evolutionarily advantageous if acute stressors invariably impaired immune function, because of their prevalence in everyday life. If this were the case, people would

experience high vulnerability to infective agents that would quickly do them in. There is some evidence that providing people with effective means for managing stressors may have a positive effect on immune function. Moreover, stress aroused while gaining coping mastery over stressors can enhance different components of the immune system.

There are other ways in which perceived self-efficacy serves to promote health. Lifestyle habits can enhance or impair health. This enables people to exert behavioural influence over their vitality and quality of health. Perceived self-efficacy affects every phase of personal change--whether people even consider changing their health habits; whether they enlist the motivation and perseverance needed to succeed should they choose to do so; and how well they maintain the habit changes they have achieved. The stronger the perceived self-regulatory efficacy the more successful people are in reducing health-impairing habits and adopting and integrating health-promoting habits into their regular lifestyle. Comprehensive community programmes designed to prevent cardiovascular disease by altering risk-related habits reduce the rate of morbidity and mortality.

D. Selection Processes

The discussion so far has centered on efficacy-activated processes that enable people to create beneficial environments and to exercise some control over those they encounter day in and day out. People are partly the product of their environment. Therefore, beliefs of personal efficacy can shape the course lives take by influencing the types of activities and environments people choose. People avoid activities and situations they believe exceed their coping capabilities. But they readily undertake challenging activities and select situations they judge themselves capable of handling. By the choices they make, people cultivate different competencies, interests and social networks that determine life courses. Any factor that influences choice behaviour can profoundly affect the direction of personal development. This is because the social influences operating in selected environments continue to promote certain competencies, values, and interests long after the efficacy decisional determinant has rendered its inaugurating effect.

2.6.3 Self-Efficacy Beliefs

Of all the thoughts that affect human functioning, and standing at the very core of social cognitive theory, self-efficacy beliefs, consist in "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" Self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. This is because unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of difficulties. Much empirical evidence now supports Bandura's (1989) contention that self-efficacy beliefs touch virtually every aspect of people's lives—whether they think productively, self-debilitatingly, pessimistically or optimistically; how well they motivate themselves and persevere in the face of adversities; their vulnerability to stress and depression, and the life choices they make. Self-efficacy is also a critical determinant of self-regulation.

Of course, human functioning is influenced by many factors. The success or failure that people experience as they engage the myriad tasks that comprise their life naturally influence the many decisions they must make. Also, the knowledge and skills they possess will certainly play critical roles in what they choose to do and not do. Individuals interpret the results of their attainments, however, just as they make judgments about the quality of the knowledge and skills they possess. Imagine, for example, a student who has just received a grade of B on a term paper. In and of itself, attaining a grade of B has no inherent causal properties. What can we predict about how receiving such a grade will affect a student? An "A student" who worked hard on that assignment will view that B in ways quite dissimilar from that of a "C student" who worked equally hard. For the former, the B will be received with disappointment; for the latter, the B is likely to be received with elation. The student accostumed to A's is likely to have his writing confidence bruised; the C-acquainted student is sure to have his confidence boosted.

Bandura's (1997) key contentions as regards the role of self-efficacy beliefs in human functioning is that *"people's level of motivation, affective states, and actions are based more on what they believe than on what is objectively true"*. For this reason, how people behave can often be better predicted by the beliefs they hold about their capabilities than by what they are actually capable of accomplishing, for these self-

efficacy perceptions help determine what individuals do with the knowledge and skills they have. This helps explain why people's behaviours are sometimes disjoined from their actual capabilities and why their behaviour may differ widely even when they have similar knowledge and skills. For example, many talented people suffer frequent (and sometimes debilitating) bouts of self-doubt about capabilities they clearly possess, just as many individuals are confident about what they can accomplish despite possessing a modest repertoire of skills.

Belief and reality are seldom perfectly matched, and individuals are typically guided by their beliefs when they engage the world. As a consequence, people's accomplishments are generally better predicted by their self-efficacy beliefs than by their previous attainments, knowledge, or skills. Of course, no amount of confidence or self-appreciation can produce success when requisite skills and knowledge are absent.

It bears noting that self-efficacy beliefs are themselves critical determinants of how well knowledge and skill are acquired in the first place. The contention that self-efficacy beliefs are a critical ingredient in human functioning is consistent with the view of many theorists and philosophers who have argued that the potent affective, evaluative, and episodic nature of beliefs make them a filter through which new phenomena are interpreted (e. g., Aristotle, James, Dewey, Kant, Maslow, Nisbett and Ross, Rokeach).

People's self-efficacy beliefs should not be confused with their judgments of the consequences that their behaviour will produce. Typically, of course, self-efficacy beliefs help determine the outcomes one expects. Confident individuals anticipate successful outcomes. Students confident in their social skills anticipate successful social encounters. Those confident in their academic skills expect high marks on exams and expect the quality of their work to reap personal and professional benefits.

The opposite is true of those who lack confidence. Students who doubt their social skills often envision rejection or ridicule even before they establish social contact. Those who lack confidence in their academic skills envision a low grade before they begin an examination or enroll in a course. The expected results of these imagined performances will be differently envisioned: social success or greater career options for the former, social isolation or curtailed academic possibilities for the latter.

As a result of the fact that the outcomes one expects are themselves the result of the judgments of what one can accomplish, one's outcome expectations are unlikely to contribute to predictions of behaviour. Moreover, efficacy and outcome judgments are sometimes inconsistent. A high sense of efficacy may not result in behaviour consistent with that belief, if the individual also believes that the outcome of engaging in that behaviour will have undesired effects.

A student highly self-efficacious in his or her academic capabilities may elect not to apply to a particular university whose entrance requirements are such as to discourage all but the hardiest souls. Low self-efficacy and positive outcome expectations are also possible. For example, students may realize that strong mathematics skills are essential for a good score and eligibility for graduate school, and this, in turn, may ensure a comfortable lifestyle; but poor confidence in mathematics abilities is likely to keep them away from certain courses and they may not even bother with the grade or graduate school.

In the social arena, a young man may realize that pleasing social graces and physical attractiveness will be essential for wooing the young lass who has caught his eye, which, in turn, may lead to a romantic interlude and even a lasting relationship. If, however, he has low confidence in his social capabilities and doubts his physical appearance, he will likely shy away from making contact and hence, miss a potentially promising opportunity.

In view of the fact that individuals operate collectively as well as individually, self-efficacy is both a personal and a social construct. Collective systems develop a sense of collective efficacy—a group's shared belief in its capability to attain goals and accomplish desired tasks. For example, schools develop collective beliefs about the capability of their students to learn, of their teachers to teach and otherwise enhance the lives of their students; and of their administrators and policymakers to create environments conducive to these tasks. Organizations with a strong sense of collective efficacy exercise empowering and vitalizing influences on their constituents, and these effects are palpable and evident.

2.6.4 Self-Efficacy Beliefs and Human Functioning

In recasting the social cognitive theory, Bandura (1986) ascribed a central role to the self-efficacy beliefs. He conceptualised self-efficacy (SE) expectation as people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performances (p.191).These expectations help to determine whether a given course of action will be initiated as well as effort expenditure, persistence, thought pattern and emotional reactions when confronted by obstacles. Self-efficacy behaviour is also influenced by such factors as outcome expectations, performance incentive and environmental support. It has also been identified as a dynamic aspect of self system that is specific to a given performance domain and interacts complexly with other person, behaviour and environmental factors. (Adeyemo, 1998).

Self-efficacy beliefs can enhance human accomplishment and well-being in countless ways. They influence the choices people make and the courses of action they pursue. Individuals tend to select tasks and activities in which they feel competent and confident and avoid those in which they do not. Unless people believe that their actions will have the desired consequences, they have little incentive to engage in those actions. How far will an interest in architecture take a student who feels hopeless in geometry? Whatever factors operate to influence behaviour, they are rooted in the core belief that one has the capability to accomplish that behaviour.

Self-efficacy beliefs also help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations; the higher the sense of efficacy, the greater the effort, persistence and resilience. People with a strong sense of personal competence approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They have greater intrinsic interest and deep engrossment in activities, set themselves challenging goals and maintain strong commitment to them, and heighten and sustain their efforts in the face of failure. Moreover, they more quickly recover their sense of efficacy after failures or setbacks, and attribute failure to insufficient effort or deficient knowledge and skills that are acquirable. (Bandura, 2001).

Self-efficacy beliefs also influence an individual's thought patterns and emotional reactions. High self-efficacy helps create feelings of serenity in approaching difficult tasks and activities. Conversely, people with low self-efficacy may believe that things are tougher than they really are, a belief that fosters anxiety, stress, depression, and a narrow vision of how best to solve a problem. As a consequence, self-efficacy beliefs can powerfully influence the level of accomplishment that one ultimately achieves. (Bandura, 1991a)

This function of self-beliefs can also create the type of self-fulfilling prophecy in which one accomplishes what one believes one can accomplish. That is, the perseverance associated with high self-efficacy is likely to lead to increased performance, which, in turn, raises one's sense of efficacy and spirit, whereas the giving-in associated with low self-efficacy helps ensure the very failure that further lowers confidence and morale.

The mediational role that judgments of self-efficacy play in human behaviour is affected by a number of factors. There may be disincentives and performance constraints; that is, even highly self-efficacious and well-skilled people may choose not to behave in concert with their beliefs and abilities because they simply lack the incentive to do so, because they lack the necessary resources, or because they perceive social constraints in their envisioned path or outcome. In such cases, efficacy will fail to predict performance. An individual may feel capable but do nothing because he feels impeded by these real or imaginary constraints. (Bandura, 1991b)

It is not unusual for individuals to over- or underestimate their abilities and suffer the consequences of such errors of judgment. These consequences of misjudgment play a part in the continual process of efficacy self-appraisals. When consequences are slight, individuals may not feel the need to reappraise their abilities and may continue to engage in tasks beyond their competence. In such situations, the relationship between efficacy judgments and subsequent behaviour will be muddled by the misjudgment of skills.

Self-efficacy must also be checked periodically to assess the effect of experiences on competence, for the degree of relationship between self-efficacy and action is affected by temporal disparities. Bandura (1984) argued that because strong

self-efficacy beliefs are generally the product of time and multiple experiences, they are highly resistant and predictable. Weak self-efficacy beliefs, however, require constant reappraisal if they are to serve as predictors. Both, of course, are susceptible to a powerful experience or consequence.

Although self-efficacy beliefs exercise a powerful influence on human action, a number of factors can affect the strength of the relationship. It cannot be overemphasized that, when exploring the relationship between efficacy and behaviour, we must be certain to measure the self-efficacy beliefs relevant to the behaviour in question, and vice-versa. Faulty assessment of self-perception or performance will create an ambiguous relationship. Bandura (1986) has argued that "measures of self-precept must be tailored to the domain of psychological functioning being explored". It is important to know the precise nature of the skills required to successfully perform a particular behaviour, for misweighting requisite sub skills results in discrepancies between self-efficacy and behaviour, and the problem is worsened when individuals are called on to make efficacy judgments about their own skills.

Similarly, when individuals are uncertain about the nature of their task, their efficacy judgments can mislead them. Tasks perceived as more difficult or demanding than they really are result in inaccurate low efficacy readings, whereas those perceived as less difficult may result in overconfidence. Individuals often perceive their abilities as only partially mastered, feeling more competent about some components than about others. How they focus on and appraise these components will strongly affect their sense of efficacy about the task to be undertaken.

If obscure aims and performance ambiguity are perceived, sense of efficacy is of little use in predicting behavioural outcomes, for individuals do not have a clear idea of how much effort to expend, how long to sustain it, and how to correct missteps and misjudgments. The aims of a task and the performance levels required for successful execution must be accurately appraised for self-efficacy judgments to serve as useful regulators and predictors of performance. This factor is especially relevant in situations where an individual's "accomplishment is socially judged by ill-defined criteria so that one has to rely on others to find out how one is doing" (Bandura, 1986,). In such situations, people lack the experience to accurately assess their sense of efficacy and have no option but to gauge their abilities from knowledge of other experiences, often a

very poor indicator and predictor of the required performance. This faulty self-knowledge can have unpredictable results.

2.7 Self-Efficacy Experiences in Adolescence

Each period of development brings with it new challenges for coping efficacy. As adolescents approach the demands of adulthood, they must learn to assume full responsibility for themselves in almost every dimension of life. This requires mastering many new skills and the ways of adult society. Learning how to deal with pubertal changes, emotionally invested partnerships and sexuality becomes a matter of considerable importance. The task of choosing what lifework to pursue also looms large during this period. These are but a few of the areas in which new competencies and self-beliefs of efficacy have to be developed.

With growing independence during adolescence, some experimentation with risky behaviour is not all that uncommon. Adolescents expand and strengthen their sense of efficacy by learning how to deal successfully with potentially troublesome matters in which they are unpracticed as well as with advantageous life events. Insulation from problematic situations leaves one ill-prepared to cope with potential difficulties. Whether adolescents forsake risky activities or become chronically enmeshed in them is determined by the interplay of personal competencies, self-management efficacy and the prevailing influences in their lives. (Bandura, 1994)

Impoverished hazardous environments present especially harsh realities with minimal resources and social supports for culturally-valued pursuits, but extensive modeling, incentives and social supports for transgressive styles of behaviour. Such environments severely tax the coping efficacy of youth enmeshed in them to make it through adolescence in ways that do not irreversibly foreclose many beneficial life paths.

While no period of life is ever free of problems, adolescence has often been characterized as a period of psychosocial turmoil. Contrary to the stereotype of "storm and stress," most adolescents negotiate the important transitions of this period without undue disturbance or discord. However, youngsters who enter adolescence beset by a disabling sense of inefficacy transport their vulnerability to distress and debility to the new environmental demands. The ease with which the transition from childhood to the

demands of adulthood is made similarly depends on the strength of personal efficacy built up through prior mastery experiences. (Bandura, 1994)

2.8 Self-Efficacy and Human Attainment

The Roman poet Virgil observed that "they are able who think they are able." The French novelist Alexander Dumas wrote that, when people doubt themselves, they make their own failure certain by themselves being the first to be convinced of it. There is now ample evidence to suggest that Virgil and Dumas were absolutely correct.

Since Bandura first introduced the construct of self-efficacy in 1977, researchers have been very successful in demonstrating that individuals' self-efficacy beliefs powerfully influence their attainments in diverse fields (Stajkovic and Luthans 1998,). In his 1997 book, *Self-Efficacy: The Exercise of Control*, Bandura set forth the tenets of his theory of self-efficacy and its applications to fields as diverse as life-course development, education, health, psychopathology, athletics, business, and international affairs. In this volume, Bandura also further situated self-efficacy within a social cognitive theory of personal and collective agency that operates in concert with other sociocognitive factors in regulating human well-being and attainment. He also addressed the major facets of agency—the nature and structure of self-efficacy beliefs, their origins and effects, the processes through which such self-beliefs operate, and the modes by which they can be created and strengthened. In addition, Bandura reviewed a vast body of research on each of these aspects of agency in diverse applications of the theory.

Self-efficacy has generated research in areas as diverse as medicine, athletics, media studies, business, social and political change, psychology, psychiatry and education. In psychology, it has been the focus of studies on clinical problems such as phobias, depression, social skills, assertiveness, smoking behaviour and moral development. Self-efficacy has been especially prominent in studies of educational constructs such as academic achievement, attributions of success and failure, goal setting, social comparisons, memory, problem solving, career development, teaching and teacher education.

In general, researchers have established that self-efficacy beliefs, behaviour changes and outcomes are highly correlated and that self-efficacy is an excellent

predictor of behavior. The depth of this support prompted Graham and Weiner (1996) to conclude that, particularly in psychology and education, self-efficacy has proven to be a more consistent predictor of behavioural outcomes than have any other motivational constructs. Clearly, it is not simply a matter of how capable one is, but of how capable one believes oneself to be.

According to social cognitive theory (Bandura, 1986), self-efficacy, or an individual's beliefs about his/her ability to perform a particular behaviour in a given situation, mediates the relation between an individual's knowledge and skills related to performing a behaviour and his or her actual performance of the behaviour. For example, in the area of sexual risk taking, contraceptive self-efficacy has been found to be linked to actual contraceptive use level at last sexual intercourse (Sieving, Bearinger, Resnick, Pettingell, & Skay, 2007). Likewise, condom use self-efficacy has been linked to actual condom use (Kalichman et al., 2002), and resistive efficacy has been linked to having fewer sexual partners (Mitchell, Kaufman, & Beals, 2005).

Perceived self-efficacy often is more difficult to influence especially if people already have low perceived efficacy. For example, in the case of condom use, many people may not believe they are actually capable of using condoms because they are too embarrassed to talk about them, fear that suggestion of using a condom would ruin an intimate mood, or do not know how to go about bringing up the topic in a sexual encounter.

Bandura (1977) notes that an individual's self-efficacy perceptions are developed from four sources of information: performance accomplishments (e.g., role playing, participant modeling), verbal persuasion (e.g., self-instruction, suggestion), vicarious experience (e.g., watching live or symbolic modeling), and physiological states (e.g., relaxation, biofeedback, and symbolic desensitization). Performance accomplishments, such as role-playing (or performing) the recommended behaviour, often works the best in increasing self-efficacy perceptions. When people have the opportunity to role-play difficult behaviours or recommended responses, it provides them with ideas and strategies for how to act in real situations.

Role-playing is an especially useful means to increase perceived self-efficacy with regard to a recommended response. One might have audiences or clients practice

(a) bringing up the issue of condoms, (b) persuading a reluctant partner, and (c) persuading a willing partner to follow through on the use of condoms. If the mass media is used, then one might have actors who are similar to the focal audience role-play these same scenarios (this would be vicarious experience). In sum, creative communication strategies may need to be used to increase fear control persons' response efficacy and self-efficacy beliefs.

2.9 Sexual Self -Concept and Self- Efficacy

Sexual self-concept is considered a multidimensional construct that refers to an individual's positive and negative perceptions and feelings about himself or herself as a sexual being. As with other dimensions of self-concept, the development and consolidation of one's sexual self-concept is considered an important developmental task of adolescence (Chilman, 1983; Gagnon & Simon, 1973; Longmore, 1998). Despite its developmental significance, however, only a handful of published studies have focused on assessing adolescents' sexual self-concepts and determining associations between adolescents' sexual self-concepts and sexual behaviours and experiences (Breakwell & Millward, 1997; Impett & Tolman, 2006; O'Sullivan, Meyer-Bahlburg, & McKeague, 2006; Winter, 1988).

According to Boskey (2008), the most important factors in individuals' ability to negotiate condom use with their partners is something known as self efficacy. People need to feel confident in their ability to use condom or they would not.

Someone who has high condom use self-efficacy feels comfortable buying a condom and carrying one with them when they might need it. They feel like they know how to use a condom correctly and can do so during sex. And perhaps most importantly, they are confident in their ability to ask their partner to use a condom and say "no" to anyone who refuses to comply. Self- efficacy in this context, increases not only peoples' intention to use a condom but the percentage of time they actually use them. Both of these are important factors in the promotion of safer sex.

Emperical Review of Literature

2.10 Family Influence on Adolescents' Sexual Behaviour

According to Abu and Akerele (2006), variables like family history, parental education and type of parental care affect adolescents' sexual behaviour. If teens feel

parental support, feel a connection to their parents, and are aptly supervised by them, they are less likely to have early sexual exposure and become pregnant. If parents model sexual risk taking behaviour, such as early child bearing, or permissive attitude towards pre-marital sex, adolescents from such environment could engage in early sexual intercourse. Another family influence on adolescent sexual behaviour can be genetic or biological variables. Hormonal level and the timing of puberty, which can affect sexual behaviour, are partially hereditary. If a mother is young at her first intercourse, it is more likely that both son and daughter will have sex before age 14.

A broad range of family variables affect adolescent sexual behaviour. Family influences include (a) the contextual and structural features of families (e.g., parent's education, marital status, sibling composition): (b) family processes, relationships, or practices of parenting (e.g., parental support, control, or supervision of teenagers); and (c) biological or hereditary transmission of potentially important antecedents (for example, hormones and the timing of pubertal development) (Miller 2002).

Family Structural Influences

The structure of a family provides a salient developmental context, in that children grow up usually having primary relationships with one or two biological parents, and with or without older and younger siblings. With respect to parents' marital status, many studies consistently show that living with a single parent is related to adolescents being more likely to have had sexual intercourse (Miller, Benson, & Galbraith, 2001).

Several investigators such as Whitbeck, Simons, & Kao, (1994) have gone beyond the bivariate relationship to show that single or divorced parents' more permissive sexual attitudes, lesser parental supervision, and parents' own dating activity help explain why adolescents in some single parent families are at increased risk. Specifying the single parent mechanisms differently, the Researchers reported that the number of parents' relationship transitions or number of changes in parents' marital status, and time lived with single parents, are related to teens' risk of sexual problem.

Having older siblings also is related to higher risk of adolescents sexual behaviours .This effect is not due to having older siblings per se, because the influence on younger siblings' risky behaviours is stronger if older siblings have had sexual intercourse, and especially if older sisters have experienced a sex-related problem (East, 1996a, 1996b; East, Felice & Morgan, 1993; East & Shi, 1997; Widmer, 1997).

Studies have found that traumatic child or adolescent experiences, especially those involving sexual abuse, are related to higher adolescent sexual risk (Miller 2001), both through earlier onset of voluntary sexual intercourse (Browning & Laumann, 1997; Miller, Monson, & Norton, 1995; Small & Luster, 1994) and through less consistent use of contraception (Roosa, Tein, Reinholtz, & Angelini, 1997; Stock, Bell, Boyer, & Connell, 1997).

In neighbourhoods that are characterized by high residential turnover, poverty, and crime rates, which are perceived by residents to be dangerous, adolescents tend to have early onset of voluntary sexual intercourse, low use of contraception, and high sexually transmitted infection rates (Billy, Brewster, & Grady, 1994; Brewster, 1994; Brewster, Billy, & Grady, 1993; Upchurch, Aneshensel, Sucoff, & Levy-Storms, 1999; Miller et al., 2001).

Parents or parenting adults occupy a social and economic status (SES) in the community, usually reflected by some combination of their education, occupation and income. According to Miller (2001), there is abundant evidence that parents' socio-economic status is related to adolescent unwholesome sexual practice; adolescents whose parents have higher education and income are more likely both to postpone sexual intercourse and the use of contraception.

Parent/Child Relationship

Many researchers have investigated the association between adolescents' sexual behaviour and family process variables such as parental warmth, support parent-child closeness, or connectedness. For instance, Jaccard, Dittus and Gordon, (1996) Resnick et al.,(1997) Weinstein and Thornton (1989) opined that parent-child closeness is associated with reduced adolescent risky sexual behaviour through teens remaining sexually abstinent, postponing, having fewer sexual partners, or using contraception more consistently. For example, parent-child connectedness or closeness is related to both daughters' and sons' postponement of sexual intercourse and to more consistent contraceptive use by sexually active teens

Most of the proofs show that parental supervision and monitoring of children is another important relationship dimension related to adolescents' sexual behaviours in ways that would lower their risk of sexually transmitted infection (Miller et al., 2001). More specifically, family rules and household routines, parental supervision of dating activities, and parental monitoring of teens all have been associated with teens not

having fewer sexual partners. (Luster & Small 1994, 1997; Small & Luster, 1994; Upchurch et al., 1999) Parental supervision and control might also reduce teen pregnancy indirectly by decreasing children's association with high-risk peers, and by lowering teen alcohol and drug use, thereby decreasing teenagers' unprotected sexual intercourse.

In the same vein, Collier (1997) observed that adolescents appear to thrive developmentally when their family setting is one of warm relationship; one in which adults and children are permitted to express their view points and assert their individuality; and one in which parents expect mature behaviour from teenagers; establish and enforce reasonable roles; and on the contrary, if the relationship is weak and autocractic, the adolescents will find a way to run away and find refuge and solace in what ever makes them happier. Thus if a close and cordial relationship can be achieved between the parents and the adolescent, it will foster acceptable training and acceptability of family norms and values in relation to sexual behaviours and other devised values and norms of the family.

A possible explanation for the few contrary findings in this area is that parental control is multidimensional, and it is associated with negative teen outcomes if it is excessive or coercive (Barber, 1996; Gray & Steinberg, 1999). In fact, sexual intercourse and partners' psychological control is related to high risk behaviour among parents; psychological control is related to high risk behaviour among sexually active daughters (Rodgers, 1999, Dorious & Barber, 1998).

On the other hand, if teen sexual behaviours are known to, or suspected by parents, they might begin or intensify their communication with peers about sex and contraception. Measures of communication content – what parents and teens talk about – as well as the frequency and the quality of parent-teen communication, also vary greatly across studies. Further, associations between parent/teen communication and adolescent sexual behaviour are moderated by parents' values. Investigations by Jaccard et al., (1996) Luster and Small, (1997) Miller, Norton, Fan and Christopherson (1998) Miller et al. (1999) have demonstrated that parents' sexual values, in combination with parent/child communication, have an important effect on adolescents' intercourse experience.

In a number of other studies, mediating mechanisms have been identified that could help explain how parent/child relationships (especially closeness and supervision) influence adolescents' sexual behaviour. For example, in one study by Scaramella,

Conger, Simons and Whitbeck (1998), the effects of parental warmth and involvement in 7th graders were shown to affect teen pregnancy status in 12th grade through intervening mechanisms such as deviant peer affiliations, substance use, delinquency, and academic competence.

Results of other studies indicate that parent/child closeness is related to mediating mechanisms such as teens' attitudes about having intercourse; teens' depression, impulse control, academic, and prosocial activities; and teens' use of substances and association with sexual active peers; all of which are related to adolescent sexual behaviour. In particular, several investigators such as Benda and DiBlasio (1991) Feldman and Brown, (1993) Whitbeck, Conger and Kao (1993); Whitbeck, Hoyt, Miller and Kao (1992) have suggested that lack of closeness in the parent/teen relationship increases the negative influence of peers on adolescent sexual activity.

On the positive side, parent-child closeness and involvement can reduce teen sexual behaviour by enhancing their educational achievement, providing them with opportunities to develop prosocial skills, and helping them acquire a sense of competence and worth (Remirez-Valles, Zimmerman, & Newcomb, 1998).

Family Biological Influence

Moronkola and Okanlawon (2003) stressed that heredity determines, to a large extent, what a person will be in life and his/her behaviour in the society. They affirmed that family trait and inheritance will "make or mar" a person in life. Genetic or biological variables also can be conceptualized as family influences on adolescents' sexual behaviour. For example, androgen hormone levels and the timing of pubertal development are partially, and they affect adolescent sexual behaviour (Morris, 1992; Udry & Campbell, 1994).

Garn (1980), Newcomer and Udry,(1984) reported that positive correlations exist between the age of menarche among mothers, daughters, and sisters. Further, mothers' young age of first intercourse predicts sons and daughters also having sex before age 14.

Androgen hormone levels (from blood serum assays) are related to adolescents' sexual arousal and noncoital sexual behaviours in cross-sectional analysis, but do not predict intercourse experience among females as consistently as among males (Udry,

1988; Udry & Billy, 1987; Udry, Billy, Morris, Groff, & Raj, 1985; Udry, Talbert, & Morris, 1986).

In a longitudinal study spanning 3 years by Halpern, Udry, Campbell, and Suchrindran (1993),it was discovered that increases in testosterone hormones were not predictive of male adolescents' sexual behaviours; pubertal development level was a much stronger predictor of sexual ideation and behaviour. The research suggests that early pubertal development is a significant predictor of early transition to sexual intercourse, and earlier onset is linked with less responsible sexual practices (for example, not using contraception and having a large number of partners).

2.11 Parental Socio-Economic Background and Adolescent Sexual Behaviours

A wide range of factors influence and are affected by the timing and frequency of adolescent sexual activity (Kirby 2001). Neighbourhood characteristics, socio-economic status, parent's marital status, sibling characteristics, sexual abuse, and biological factors all have been shown to be related to teenage sexual behaviour (Miller, Benson, and Galbraith 2001). Living in neighborhoods with low socio-economic status and high disorder or hazards is associated with higher risk sexual behaviour whereas high neighbourhood monitoring and high neighbourhood religious practice are associated with lower sexual risk behaviour.(Ramirez-Valles, Zimmerman, & Newcomb 1998; Upchurch ,Aneshensel , Sucoff & Levi-Storms, 1999)

High socio-economic status of parents most often has been found to be associated with lower risk of having had intercourse and later sexual debut for adolescents (Taris & Semin 1997; Ramirez-Valles, Zimmerman & Newcomb 1998; and Upchurch et al. 1999). Miller, Sabo, Farell, Barnets and Melnick (1998) found no relationship between family income and teenage sexual behaviour and other investigators reported mixed results; parents socio-economic status was related to lower risk for teenage pregnancy among Latinos and higher risk for African Americans.

Miller et al (2001) also reported that in most studies, living in other than a two-parent home (e.g., single parent, step, divorced, or other nontraditional family setting) is associated with increased risk of adolescent sexual intercourse. Also, having sexually active, pregnant, or parenting older siblings was found to be related to younger sibling's

more risky sexual behaviour (East 1996; Whitbeck Conger & Kao, 1999), although this effect may be mediated by a positive sibling relationship.

Also, parental control and monitoring were generally found to be related to decreased probability of sexual intercourse among teenagers (Miller, Benson, and Galbraith 2001). Parental rules, monitoring and presence were related to decreased and more responsible sexual activity (Perkins, Luster , Villarruel and Small 1998; Miller, Benson, and Galbraith 2001; Rodgers 1999; and Whitbeck et al. 1999). Whitbeck et al (1999) found a mixed outcome by age, with parental monitoring of younger adolescents leading to decreased sexual activity and among older adolescents leading to increased sexual activity. In another study, Rodgers (1999) found parental monitoring to be associated with lower risk sexual behaviour, but parent's psychological control was related to higher risk sexual behaviour. Upchurch et al (1999) also found that intrusive control by parents was linked to increased sexual behaviour among teenagers.

The relationship between parent/child communication and adolescent sexual activity is less well understood. Although several studies report that frequent and positive parent/child communication about sex is related to less risky adolescent sexual behaviour (East 1996; Miller, Benson & Galbraith 2001), others report no relationship (Chewning and Koningsveld 1998; Rodgers 1999), and a few even reported a positive association between parent/child communication and riskier sexual behavior in teenagers (Miller,et al 2001). These counterintuitive findings could be due to methodological problems of the research.

Parents' style of communication may also be related to adolescent sexual behavoiur; Miller, et al (2001) discovered that open, positive and frequent communication about sex was related to adolescents being abstinent, delaying their first sexual intercourse, as well as having fewer partners.

Parent's values relating to teenage sexual activity are clearly associated with teenager's reported sexual behaviour. Recent research shows that teenagers whose parents disapprove of teenage sex are less likely to have intercourse (Jaccard, Dittus, & Gordon 1998; and Miller,et al 2001). Conversely, mothers' permissive attitudes were found to be related to increased adolescent sexual intercourse (Taris & Semin 1997).

Parents' attitudes alone are not responsible for this effect, because some studies suggest that adolescents' perception of their parents' attitudes is more important than the parent's actual attitude.

In another study by Holtzman and Robinson (1995), conducted on a sample of in-school adolescents, it was discovered that adolescents who discussed HIV with their parents were less likely to have had multiple partners, unprotected sex or to have injected drugs than did those who did not discuss HIV with their parents.

Much of the interest in adolescent sexual intercourse is driven by several of its serious consequences, including sexually transmitted diseases (STDs), unwanted pregnancy, and birth. The rate of sexual intercourse among teenagers varies a great deal between cultures. In the United States for instance, there is considerable variation according to age, socioeconomic status, geographic location, and race/ethnicity. Most of these differences can be attributed to a wide range of biological and social factors. Rates of sexual activity among teenagers leveled off in the United States during the 1990s, and teenage pregnancy declined, a fact that is partially attributable to less teenage sexual intercourse and an increase in the use of contraceptives among sexually active adolescents (Flanigan 2001). Adolescent sexuality is less often studied than sexual intercourse. As a result, the wide range of noncoital sexual activity that adolescents experience is less understood.

Also, Abu and Akerele (2006) found out in a study that was carried out to investigate parental influence on sexual behaviour among in-school adolescents in Ibadan, Nigeria that socio-economic status of parents based on indices such as parents' income, religion, type of housing, nature of job, social value, and the environment affect the sexual behaviour of adolescent either positively or negatively. The finding also revealed that if an adolescent resides in the "ghettos" or in the slums, there is every tendency for such an adolescent to be prone to early sexual activity and juvenile delinquency than an adolescent from well organized residential areas. In the same vein, Lykken (1997) contended that poverty, lack, parents working long hours and acculturation, pushes the adolescent into unnecessary sexual relationships while children raised by loving parents who maintain clear and consistent personal and high social standard are more likely to have good feelings about themselves than children

brought up by harsh and poor parents. Also, the World Bank (1993) reported that socio-economic status of parents determines to a large extent, adolescents social behaviour in the society.

Bachy, Duner and Selosse (1972) reported that a great majority of young delinquents brought to trial in juvenile courts in the United States of America came from poor socio-economic background while a survey of top high school students (those listed in who's who among American high school students) reported that they were predominantly responsible and conservative in their sexual attitudes and their parents were better educated and come from the higher socio-economic strata.

2.12 Adolescents Age and Sexual Risk-taking Behaviour

Benedict (2001) in a study on the attitude of Zambian adolescents to HIV/AIDS, which comprised of a sample of 90 female and 85 male adolescents found out that inexperienced young adolescents within 14-19 years blindly followed their peer pressure into sexual immorality and that a strong relationship exists between the age of adolescents and their perception of and attitude towards HIV/AIDS phenomenon.

Akpama, Ayang and Denga (2012) discovered that judging by the culture and traditions of the people from Cross River State, Nigeria, adolescents within the ages of 14-19 are considered as not being socially matured enough to assimilate sexual reproductive issues. This is because cultural values are often discussed according to the age of the individuals; the study further revealed that peer group pressure significantly influenced adolescents' attitude towards HIV/AIDS prevention but failed to influence their perception of HIV/AIDS prevention and the study also showed that regardless of what adolescents know about HIV/AIDS prevention, peer pressure have an overwhelming influence on the attitude of its members.

In addition to the above, age factor failed to influence adolescents' perception of HIV/AIDS prevention but influenced significantly their attitude towards HIV/AIDS prevention. On the other hand, the study found that age significantly influenced adolescents' attitude to HIV/AIDS prevention. In the same vein, Akpede (2003) discovered that peer formations are done within the context of age brackets and so are attitude formations.

2.13 Motivational Interviewing and Health Risk-Protective Behaviours

Several studies have been carried out on the effectiveness of motivational interviewing. Poulin (2006), in his study on the most promising type of intervention to address high-risk alcohol use among college students in Britain, New Zealand and Canada, found that motivational interviewing led to significant reduction in drinking and drug use.

Burke, Arkowitz and Menchola (2003) in meta-analysis of the efficacy of motivational interviewing in clinical trials that compared an adaptation of motivational techniques with other treatment found that motivational interviewing showed equivalent benefits to other strategies but that they achieved the same results in far less time.

Hodgins, Currie and el-Guebaly (2001) reported that across studies, people receiving motivational interviewing tend to show more change relative to those given educational, didactic or persuasive interventions; when motivational interviewing is compared with other active treatment approaches (such as Cognitive Behavioural Therapy), outcomes tend to be similar, with Motivational interviewing achieving its effect in fewer sessions.

Clark Walter, Guigerich and Meltzer (2006) examined the effects of motivational interviewing for probation officers and came to the conclusion that the technique represents a turn to moving probation departments into the "business of behaviour change" (Clark 2006).

Barnett, Monti, Wood (2001) have researched the effectiveness of motivational interviewing in reducing alcohol use with adolescents aged 13 – 19 years seeking emergency health services. With older adolescents (aged 18 – 19), they found that the MI-intervention group and the standard hospital care group displayed equivalent levels of alcohol use reduction. However, at the 6-month follow-up, adolescents' harm reduction behaviour was superior to the standard care group. Specifically, the Motivational interviewing- Intervention group displayed decreased episodes of drinking and driving, alcohol-related injuries, and alcohol-related problems (that is with parents, friends, police and school).

Berg-Smith, Stevens and Brown (1999) implemented a motivational interviewing approach with a large sample of 13 – 17 year old patients who had high levels of lipoprotein cholesterol that needed to reduce their intake of total fat, saturated fat and cholesterol. Concordant with the patient's transition into high school, Motivational interviewing matched the patient's movement from family-based care to

self-care. At post intervention, the Motivational interviewing group displayed re-engagement in goal setting, as well as increased a renewed adherence to their specialized diets, resulting in decreased consumption of calories and dietary cholesterol. In addition, health care professionals and participants reported high levels of acceptance of the intervention.

Erickson, Gerstle and Feldstein (2005) reported that the efficacy of Motivational interviewing has been evaluated in new health-risk behaviour areas, including risky sexual behaviour and marijuana use. The uses of Motivational interviewing and narrative therapy may reduce high-risk sexual behaviour and increase contraceptive use among a sample of girls.

Brown, Ramsey and Strong (2003) reported that motivational interviewing is amassing support as a brief intervention with adolescents who are highly ambivalent about following a prescribed health care regimen. As a supportive, flexible, idiographic, brief and autonomy-based intervention, Motivational interviewing overlaps well with adolescents' competing attentional demands, developing identities and desire to assert independence.

Again, Brown, Ramsey, Strong (2006) examined the effects of motivational interviewing on smoking cessation in adolescents with psychiatric disorders and found out that motivational intervention was more effective than brief advice for increasing self-efficacy regarding ability to quit smoking; also a significant intervention of treatment with baseline intention to quit smoking was also found.

Cambridge and Strang (2004) examined the efficacy of single session motivational interviewing in reducing drug consumption and perceptions of drug-related risk and harm among study participants of two hundred young people with age range 16 – 20 using illegal drugs, findings showed that a good follow-up rate(89.5%; 179 of 200) was achieved in comparison to the control group, those randomized to motivational interviewing reduced their use of cigarettes, alcohol and canabies; the effect was greater among heavier drug users and cigarette smokers and the effect was also greater among youths usually considered vulnerable to high-risk according to other criteria.

Near-King, Wright, Parsons, Frey, Templin, Lam and Murphy (2006) carried out a research using a brief individual motivational interviewing among 51 HIV positive youth aged 16-25 who were grouped into treatment and control group; after four sessions, the treatment group showed significantly greater reductions in

unprotected sex acts compared with the control. These results demonstrated the potentials of a brief motivational interviewing to improve health risk behaviour in HIV positive youths.

2.13 Self- Efficacy and Health risk-protective behaviour

Salazar, Diclemente, Wingood, Crosby, Harrington, Davis, Hook and Oh (2004) used a sample of 335 African American, sexually active, high-risk, adolescent females ages 14-18 (37% had reported at least one pregnancy) to test a model in which self-concept and partner communication predicted the frequency of refusing unprotected sex in the previous 6 months, it was discovered that partner communication variables (a latent variable that included a measure of condom self-efficacy) mediated the relation between self-concept (a latent variable that included global self-esteem) and sex refusal. While these results suggest the importance of self-concept and self-efficacy to understanding African American females' sex refusal behaviour, the study neither measured nor modeled the specific contributions of specific measures of sexual self-concept and sexual self-efficacy.

An earlier study by Rosenthal, Moore and Flynn (1991) collected data from a large Australian sample of sexually active university freshmen using specific measures of sexual self-concept and sexual self-efficacy. Findings indicated that one specific sexual self-efficacy factor (i.e., resistive efficacy or the confidence to say no to sex) was associated with lower sexual risk taking (defined as condom use) with both casual and regular sex partners. With regular partners, however, higher assertive self-efficacy and more positive sexual self-esteem were associated with higher sexual risk-taking scores. The pattern of these results was similar for both males and females, although the researchers noted significant mean level sex differences in both sexual self-esteem scores (males' scores were higher than females) and scores on the resistive efficacy factor (females' scores were higher than males).

Seal, Minichiello, and Omodei (1997) built on the Rosenthal et al.'s (1991) findings using another Australian university sample of young women. In this study, sexual self-efficacy was composed of one global, rather than three specific, factors, and, contrary to expectations, was positively associated with increased sexual risk with casual partners (but not with regular partners). Positive sexual self-esteem was not associated with sexual risk taking in either type of sexual relationship; however,

positive views of the sexual relationship were associated with decreased sexual risk taking with casual sex partners and increased sexual risk taking with regular sexual partner.

Also, poor compliance with recommended treatment may result partly from patients' experience of adverse side effects, but it may also be due to a lack of self-regulatory skills. Considering psychosocial factors, adherence is related to lack of social support and lack of self-efficacy beliefs about one's ability to adhere to medication (Catz, Kelly, Bogart, Benotsch, & McAuliffe, 2000). For example, Molassiotis (2002) found that adherence to antiretroviral medication in patients with HIV was strongly related to self-efficacy (That is, optimistic self-beliefs about the ability to follow the medication regimen).

Condom use self-efficacy has been studied to explain unprotected sexual behaviour, such as not using contraceptives to avoid unwanted pregnancies. Teenage girls with a high rate of intercourse have been found to use contraceptives more effectively if they believe they could exercise control over their sexual activities (Levinson, 1982; Wang, Wang, & Hsu, 2003). Most of the studies referring to risky sexual behaviours have examined social cognitive predictors of condom use. Optimistic beliefs in one's capability to negotiate safer sex practices emerged as the most important predictor of protective behaviours (Basen-Engquist, 1992;, Vaughn, & Walter, 1992; Wulfert & Wan, 1993).

Rabinowitz ,Mausbach ,Thompson, Gallagher and Thompson (2007) examined the relationship between self-efficacy beliefs in three distinct domains of care giving and cumulative health risk associated with health behavior patterns; results showed that higher efficacy for obtaining respite and self-efficacy for controlling upsetting thoughts were found to be related to reduced health risk. This finding suggests that caregivers who believe that they can remove themselves from the stresses of care giving and who can manage the distorted cognitions often associated with care giving may experience tangible benefits in health behaviours, and ultimately, improved physical health.

Research on adolescent sexual behavior predominantly has focused on sexual risk-taking behaviours in efforts to reduce unwanted pregnancies and sexually transmitted diseases (STDs) ; (e.g., Capaldi, Stoolmiller, Clark, & Owen, 2002; Raffaelli & Crockett, 2003). Whereas the continuing high incidence rates of STDs in the adolescent population are a serious public health issue, developmental psychologists and feminist theorists (among others) have sought to enlarge the research agenda from

the more narrow focus on risk reduction to a broader goal of promoting adolescent sexual health (Russell, 2005; Welsh, Rostosky, & Kawaguchi, 2000).

Drawing on ecological developmental theories, researchers have proposed multidimensional models of healthy sexuality that include, at the level of the individual, the development of a positive sexual self-view or sexual self-concept (Tolman, Striepe, & Harmon, 2003). To date, however, only a handful of empirical studies have examined adolescent sexual self-efficacy as a potentially important factor in promoting adolescent sexual health. (Miller, 2002)

Breakwell and Millward (1997) surveyed a sample of 474 adolescents who were 16-19 years old and found that sexual assertiveness (the sole dimension of female adolescent sexual self-concept that emerged in factor analyses) was associated with female adolescents' reports of higher numbers of partners and more frequent condom use. Among male adolescents, however, sexual self-concept was unrelated to sexual risk-taking behaviours. Impett and Tolman (2006), using a modified unidimensional measure of sexual self-concept with a sample of 116 late adolescent girls, found that sexual self-concept was associated with more sexual experience (including coital frequency) and sexual satisfaction. Sexual self-concept was not, however, associated with greater numbers of partners or earlier coital debut.

A number of studies have adopted self-efficacy training to influence healthy behavioural change. Bagozzi and Edwards, (1988); Brug, Hospers and Kok (1997); Funrman and Kuhl,(1998); Gollwitzer and Oettingen, (1988) found out that dieting, weight control and preventive nutrition can be achieved through self-efficacy training.

Anderson, Winnet and Wojoik (2000) found that self-efficacy showed to be a significant predictor of physical, social and self evaluative outcome expectancies regarding healthy nutrition such as abstinence from fat and reduced fibre intake. Resnicow et al (2000) found that self-efficacy training was linked with ability to eat more fruits and vegetables as well as outcome of expectancies in terms of fruits and vegetable intake. Bond (2001) discovered that self-efficacy was found to be strongly related to maintenance of diabetes self-care (diet, exercise and glucose testing). The most powerful effects were observed when strong optimistic self-beliefs were combined with strong beliefs about outcomes

Also, Christiansen, Vika and Jarchow (2002) examined self-efficacy training on youngsters and discovered that heavy drinkers had lower abstinence self-efficacy than those who drink less or who drink only in social situations. Dijkstra and Devries (2000) examined self- efficacy training attempts on a sample of smokers with low motivation to quit and found out that quitting history and smoking cessation behaviour were related to self-efficacy.

Grossman, Brink and Hauser (1987) carried out a study on self-efficacy interventions to enhance the self-management ability of insulin-dependent patients and found out that self-efficacy was related to their confidence to implement tasks specific to four components of insulin-dependent diabetes management (insulin injections, blood glucose monitoring, dietary prescriptions and exercise).

O'Sullivan, Meyer-Bahlburg and Mckeage (2006) developed and validated a sexual self-concept inventory specifically for ethnically diverse early adolescent girls. In this study, sexual self-concept was composed of three factors, sexual arousability, sexual agency, and negative sexual affect, each of which was associated with reports of romantic and sexual experiences. Higher scores on the first factor were significantly associated with girls' reports of having a boyfriend, having been in love, kissing, fondling, and coitus; higher scores on the sexual agency factor were associated with reports of kissing and fondling experiences. Girls who reported higher levels of negative sexual affect (anxiety, self-monitoring) were significantly less likely to report these sexual experiences.

Rekart (2005) reported that HIV education, HIV testing, condom use and safer sex negotiation greatly decrease the risk to the disease among teenagers in the United States and Chad where the method showed to be the most cost – effective per infection prevented.

Bauserman, Henderson, Gray, Shea and Tomayatsu (2003) examined the effectiveness of HIV/AIDS education on prisoners nearing release into the community by comparing post-release risk behaviours, condom attitudes, and condom self-efficacy with pre incarceration behaviours, attitudes and self-efficacy at programme entry. The study revealed that post release follow- up scores for condom attitudes and self-efficacy were significantly greater than pretest scores. Also, at post release follow-up, self

reported abstinence or condom use for vaginal, anal and oral sex was significantly greater than for corresponding pre-incarceration behaviours. The researchers conclude that the findings are especially important given the high rates of behaviour and HIV seropositivity found in incarcerated populations.

In sum, relatively little empirical work has been directed toward creating valid multi-dimensional measures of sexual self-efficacy in adolescence. Existing measures are either unidimensional (Breakwell & Millward, 1997; Winter, 1988) or focus solely on girls' sexual self-concept (O'Sullivan et al., 2006). Despite some limitations, the few studies that have used these measures have consistently found that sexual self-concept is significantly associated with sexual experiences and sexual self-efficacious behaviours. Therefore, the present study is expected to fill this gap by investigating the effectiveness of motivational interviewing and self-efficacy techniques in fostering HIV risk-protective behaviours among male inmates (who are adolescents) in Borstal Remand Centres in Nigeria

2.14 Summary of Literature Review

Adolescence is a very crucial stage of human development. Falaye (2001) stated that an understanding of the period of adolescence can only be thorough within the context in which the adolescent grows. Thus inmates of remand centres need to be studied within the context of their incarceration.

The possible benefit of good rehabilitation programme for inmates lies in reduction in health-risk behaviour and fostering health-risk protective behaviour as this will go a long way in making the goals of rehabilitation achievable.

The literature tried to explore the skills of motivational interviewing and self - efficacy techniques with a view to using the treatments to foster HIV risk-protective behaviours among adolescents in three remand centres across Nigeria taking into cognizance that their formative years are being spent in incarceration, the literature showed instances where maladjustment cases, especially health-risk behaviours, have been treated with motivational interviewing and self-efficacy techniques.

From the review of related literature, factors which contribute to the spread of HIV among young population especially adolescents were examined vis a vis the plethora of concerns for the well being of youths, particularly their vulnerability to HIV transmission. However not much work has been done in the area of fostering HIV risk-protective behaviour among adolescents in correctional institutions in Nigeria even

though attempts have been made by some researchers to address the scourge of HIV among adult prisoners; the present study has thus made a modest attempt expected to fill this gap.

This study is anchored on the theory of reasoned action. This theory, advanced in the mid-1960s by Fishbein and Ajzen, is based on the assumptions that human beings are usually quite rational and make systematic use of the information available to them. People consider the implications of their actions in a given context at a given time before they decide to engage or not engage in a given behaviour, and that most actions of social relevance are under volitional control (Ajzen, 1980). The theory of reasoned action is conceptually similar to the health belief model but adds the construct of behavioural intention as a determinant of healthy behaviour. Both theories focus on perceived susceptibility, perceived benefits and constraints to changing behaviour. The theory of reasoned action specifically focuses on the role of personal intention in determining whether behaviour will occur. According to the theory, a person's intention is a function of two basic determinants:

(1) attitude (toward the behaviour), and

(2) 'subjective norms', i.e. social influence.

'Normative' beliefs play a central role in the theory, and generally focus on what an individual believes other people, especially influential people, would expect him/her to do. For example, for an adolescent to abstain from sex, his/her attitude might be "having sex with condoms is just as good as having sex without condoms'" and subjective norms (or the normative belief) could be "most of my peers abstain from sex; they would expect me to do so as well". Interventions using this theory to guide activities focus on attitudes about risk-reduction, response to social norms, and intentions to change risky behaviours.

Omu (1981) stated that adolescents face a lot of problems because they reach sexual maturity before they reach physical, emotional, social and economic maturity. Therefore, efforts aimed at psychological interventions toward reducing the scourge of HIV transmission and promoting behavioural change should be extended to adolescents in remand centres.

2.15 Conceptual Model for the Study

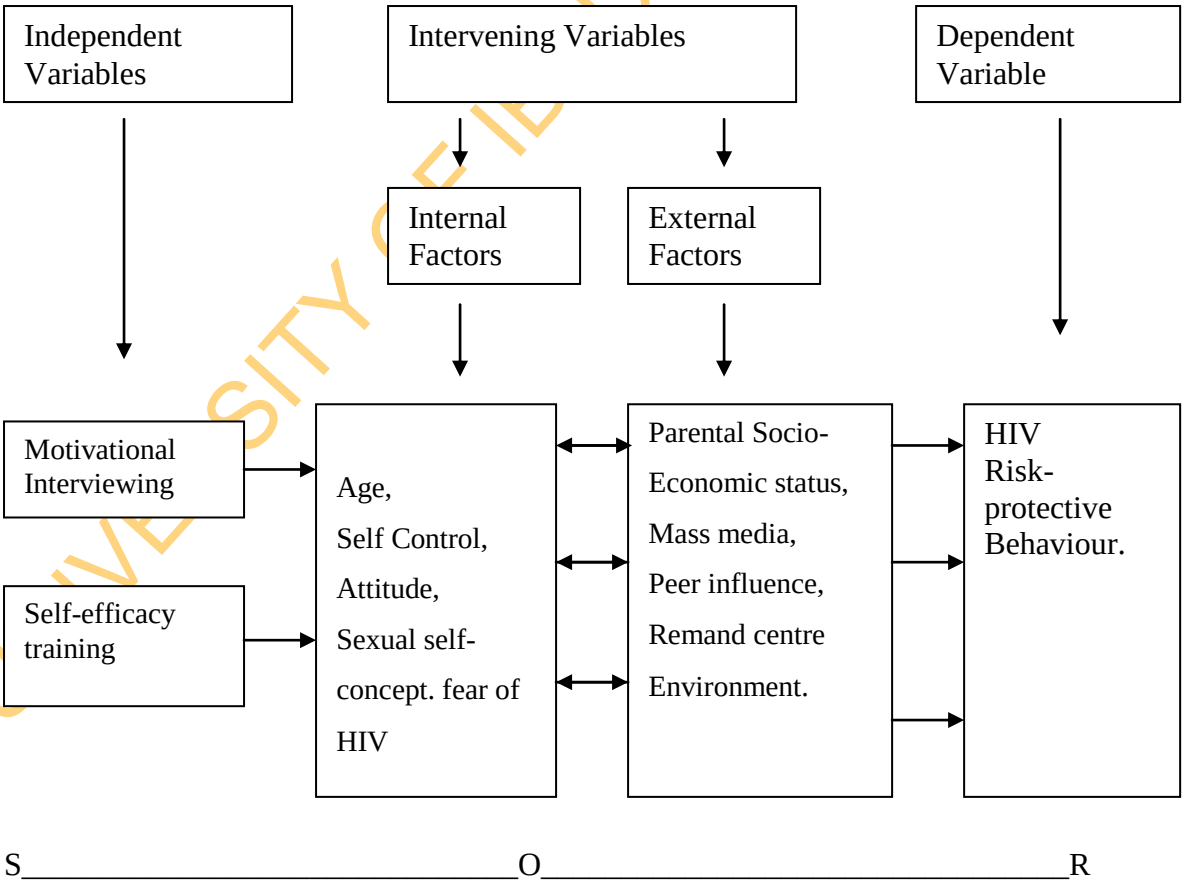
The model for this study comprises the independent variables (i.e. motivational interviewing and self-efficacy techniques) and the dependent variable (HIV risk-

protective behaviour)) which is the expected outcome that the subjects would acquire or cultivate after being exposed to the independent variables (treatment).

Intervening variables are in between the dependent and independent variables. These are factors which could be personal or organismic and could mediate between cause and effect. They are divided into first and second order intervening variables. The first order intervening variables in this study are age, attitude, self-control, and fear of HIV. The factors under the second order are factor that can affect protective behaviour ordinarily like regulations in the centre, parental socio-economic status, peer influence, environmental influence and mass media; however, this study was anchored on age and parental socio-economic background.

The following figure shows the graphic representation of the interaction of the various variables in the study.

Fig. 1: **Conceptual Model for the Study**



The behavioural equation S-O-R represents the complete interaction of various variables in the study. (Kanfer & Phillips, 1970).

S – Stimulus (i.e. the independent variables)

O – Organism (i.e. the intervening variables found in the organism)

R – Response (i.e. the dependent variables that are the resultant effects of the independent variable).

Statements of Hypotheses

The following hypotheses were tested for significance at 0.05 margin of error.

Ho_1: There is no significant main effect of treatments on HIV risk-protective behaviour of participants.

Ho_2: There is no significant main effect of adolescents' age on the HIV risk-protective behaviour of participants

Ho_3: There is no significant main effect of socio-economic status on the HIV risk-protective behaviour of participants.

Ho_4: There is no significant interaction effect of treatments and socio-economic status on the HIV risk-protective behaviour of participants.

Ho_5: There is no significant interaction effect of treatments and adolescents' age on the HIV risk-protective behaviour of participants.

Ho_6: There is no significant interaction effect of adolescents' age and socio-economic status on the participants' HIV risk-protective behaviour.

Ho_7: There is no significant interaction effects of treatments, adolescents' age and socio-economic status on the participants' HIV risk-protective behaviour.

CHAPTER THREE

METHODOLOGY

This chapter is a description of the methodology used for achieving the objectives of this study. It focuses on the issues of research design, population for the study sample and sampling techniques, instrumentation, procedure for carrying out the study, summary of activities in the experimental groups and method used for data analysis.

3.1 Research Design

A 3 X 2 X 2 quasi factorial experimental design was used for this study. The participants for the study were divided into three groups: A_1, A_2 and A_3. Groups A_1 and A_2 formed the experimental groups while group A_3 served as the control.

Therefore, the two experimental and the control groups make the three rows – A1, A2 and A3 while early and late adolescents were constituted into columns – B1 and B2, Participants with High and Low socio – economic background were constituted into columns C1 and C2. The first and second experimental groups were pre-tested and subjected to therapeutic treatments (Motivational interviewing and self-efficacy training). The control group was equally pre and post– tested and subjected to non – therapeutic talk. Below is the matrix table for the research.

Table 3.1 A 3x2x2 matrix for the psychological treatment

Therapeutic technique	**Early Adolescent High SEB**	**Low SEB**	**Late Adolescent High SEB**	**Low SEB**
Motivational interviewing	A1 B1 n=10	A1 B2 n=10	A1 C1 n=10	A1 C2 n=10
Self-efficacy	A2 B1 n=10	A2 B2 n=10	A2 C1 n=10	A2 C2 n=10
Control	A3 B1 n=10	A3 B2 n=10	A3 C1 n=10	A3 C2 n=10

Key

A 1 – Motivational interviewing

A 2 – Self- efficacy training

A 3 – Control group

B 1 – Early adolescent

B 2 – Late adolescent

C 1 – High socio – economic background

C 2 – Low socio – economic backgrounds

3.3 Population

The population for the study consists of inmates of Borstal Remand Centres in Nigeria. These centres are located in Abeokuta, Ilorin and Kaduna. As at the time this study was carried out, official records in the three centres showed a total of six hundred and sixty seven inmates in the three centres. The choice of these centres was based on the fact that the inmates are predominantly adolescents with records of maladjustment behaviours and high propensity for risky behaviours which can predispose them to HIV infection.

3.4 Sample and Sampling Technique

A sample of 120 inmates was randomly selected for the study. The participants were selected through non-proportional random sampling technique. 460 inmates accross the three centres met the inclusion criteria. After this, the distribution of screening instrument was carried out; in all, 367 inmates demonstrated tendencies for HIV-risk behaviours. Based on this, simple random sampling was used by the researcher who assigned numbers on papers which were rolled up, placed in a hat and one of the inmates was asked to pick 40 numbers from the hat. This process was repeated in the other two centres. Also, random assignment of treatment to subject was done by tossing of coin to determine the group into which each centre should fall. Based on this, motivational interviewing was used as an intervention for the participants at Abeokuta while self-efficacy was used as an intervention for the participants at Kaduna and Ilorin was used as the control group.

3.4 Instrumentation

The data for this study was obtained through the following research instruments:

1. HIV Risk Behaviour scale (HRBS)
2. HIV Risk-Protective Behavioural Scale (HRRBS):
3. Family and Environmental Sexual Risk Scale. (FESSRS)

3.4.1 HIV Risk Behaviour scale

The HRBS was developed by Darke, Hall, Heather, Ward and Wodak (1991). It consists of 11 items, with each item chosen to address specific HIVrisk-taking behaviours. The items cover both injecting and sexual behaviour. All are scored on 0-5 scale, with a higher score indicating a higher degree of risk-taking. These scores are added up to provide measures of sexual risk-taking behaviour. Scores on the whole test range from 0-55, with scores above 30 indicating a greater degree of sexual risk-taking behaviour. The HRBS measures HIV risk-taking behaviours in two sections, one for drug use and one for sexual activity and the risk they pose. The instrument showed a cronbach alpha of 0.70 and one week Test-retest reliability of 0.86. Also, recent revalidation of the instrument by the researcher showed an alpha of .67 and this was considered adequate for this study. This instrument was used as a screening tool to select participants for the study

3.4.2 Family and Environmental Sexual Risk Scale (FESRS)

This instrument was adapted from Multidimensional Sexuality Questionnaire (MSQ) by Snell, Fisher and Walters, (1993) to assess the effects of family background and other variables within the environment which can impact on adolescents' HIV risk-taking behaviours. Section A consists of the most widely used components of socio-economic status according to social scientists which are: a) Occupation b) Source of income c) Amount of income d) Education e) Type of dwelling; responses from this section were used to group participants into either low or high socio-economic status background. Section B consists of 36 items. Each item has five options which are categorized into: 1-Not at all characteristic of me, 2-Slightly characteristic of me, 3-Somewhat characteristic of me, 4-Moderately characteristic of me, 5-Very characteristic of me; from which respondents were expected to circle the ones that match their opinions. Items 2, 5, 12, 13, 14, 16, 18, 20, 22, 23, 24, 25, 30, 31, 33 and 34 are scored directly while the rest are reversed. For this study, the split half reliability method was used on the piloted scale, a reliability coefficient of .78 was obtained and this was considered adequate for this study.

3.4.3 HIV Risk-Protective Behavioural Scale (HRRBS)

HIV Risk-Protective Behavioural scale was adapted from Premarital Sexual Permissiveness Scale (PSPS) by Reiss (1967). The HRPBS is a 14-item scale designed

to measure an individual's attitude that puts him at risk of either transmitting or contracting HIV/AIDS. It also contains a five-item scale each of which can be used to measure the respondents' attitude towards HIV/AIDS Risk-protective behaviour. HRPBS has direct questions on sexual behaviour, drug use, sharp objects usage and blood practices. The items are all positively worded and can be used to categorize subjects into High and low risk taking behaviour. Scoring of HIV Risk behavioural scale is done by adding the scores up and the total indicates the level of HIV/AIDS Risk taking due to usage of sharp objects, drug use, alcohol abuse, and blood practices. In all, the higher the score, the higher the risk the participants have of contracting or transmitting HIV.

Those who scored 28-35 were deemed to have low risk of contracting HIV/AIDS while those who scored 40 and above were considered as high in risk-taking behaviour. The response patterns are categorized into: Very like – 5 Somewhat likely – 4 Somewhat Unlikely 3 Very Unlikely – 2 Don't know – 1.

The reliability and validation of the instrument were analysed by giving it out to ninety (90) SS 3 students in Abeokuta as a pilot study and the instrument demonstrated internal consistency with Cronbach alphas ranging from 0.82 to 0.88; and a two week test-retest reliability coefficient of 0.71; this makes it suitable for the current study population.

3.5 Control of Extraneous Variables

This study was designed to produce change as a result of interventions. Therefore, variables that may have effects on the treatment outcome must be controlled; such variables include participants' variables, researcher variables, technique variables and solution variables.

Consequently, in this study, random sampling of the participants into the treatment groups and the control group controlled the extraneous variables. Also, the inclusion criteria for the participants were strictly followed. The 3x2x2 factorial design for this study assisted in controlling the extraneous variables. The treatment packages were followed to the letter by the researcher to control the researcher variable. The distance between the two experimental groups and the control (Abeokuta, Kaduna and Ilorin) guided against contamination. Finally, other extraneous variables were taken care of by the use of analysis of covariance (ANCOVA)

3.6 Inclusion Criteria

i. Participants between 13 and 20 years of age.

ii. Participants who scored above 30 in the HIV Risk Behaviour scale.

iii. Participants who are undergoing rehabilitation in the centres and who have spent not less than 2 months in the centres.

iv. Participants, who have reported cases of deviant behaviours such as homosexualism, smoking, exchange of needles, and use of hard drugs in the centre.

3.7 Exclusion Criteria

i. Individuals that have not spent up to two months at the centre or who have less than three months to complete their terms.

ii. Participants who scored below 30 in the HIV-Risk Behaviour scale.

iii. Individuals that are not literate enough to complete the research instruments.

iv. Individuals that are serving punishment which may not allow them to fully participate in the programme.

3.8 Procedure for the Study

The selected remand centres' authorities in Abeokuta, Ilorin and Kaduna were informed about the aims and benefits of the training programme through a letter of introduction from the Department of Guidance & Counselling, University of Ibadan. This was to pave way for their consent and approval of the programme. The time frame of the workshop was discussed. The researcher liaised with the remand centres' authorities to fix appropriate meeting days and time with participants. The need to make participants available and consistent for the sessions was discussed and arrangement was made in organising an appropriate venue within the centres for the therapeutic sessions.

Also, the researcher engaged two research assistants who were saddled with the responsibility of ensuring that participants sign in at the beginning of each session and sign out at the end. The research assistance also assisted in administering research instrument as and when due, distribute writing materials and served refreshment at the end of the eight-week session.

The programme began with orientation proceeded to discussion, to activities and then conclusion. During this time, there was constant interaction between the researcher, the remand centre authorities and the participants. This interactive session

was in five stages: introduction and orientation; selection of participants; pre-test of the research instruments to get an initial evaluation of the participants' HIV risk-protective behaviours; therapeutic treatments and a post treatment evaluation of all the participants at the end of the sessions. Participants were selected for the programme through non-proportional random sampling technique.

The first experimental group (A1) was treated using motivational interviewing while the second experimental group (A2) was treated using self-efficacy techniques. Both groups were exposed to the eight weeks' training. The control group (A3) was subjected to a non- therapeutic discussion on Youth Development in a depressed Global Economy.

The summary of the treatment package is as follows:

Experimental group A1: Motivational Interviewing (MI)

The eight weeks' sessions covered the following aspects:

Session I

Introduction, orientation and administration of instrument to obtain pre-test scores.

Session II

Discussion of the meaning and therapeutic background and principles of motivational Interviewing.

Session III

Expression of Empathy on adolescents' vulnerability to HIV transmission.

Session IV

Development of Discrepancy between HIV risk-protective behaviours and risk-taking behaviours.

Session V

Rolling with Resistance to healthy sexual lifestyle

Session VI

Continuation of Rolling with Resistance.

Session VII

Supporting self-Efficacious beliefs about HIV risk-protective behaviours.

Session VIII

Review of activities in the preceding sessions and post treatment.

Experimental group A2: Self-Efficacy Techniques (SET)

Session I

Introduction, orientation and adminiministration of instrument to obtain pre-test scores.

Sessions II & III

Introduction to the basic terms and concepts of self-efficacy techniques.

Session IV

The process of Self-efficacy.

Session V

How self-efficacy affects human attainment, especially in risk-protective behaviours.

Session VI

Self-Efficacy with Adolescents.

Session VII

Understanding the use of Self-Efficacy in living healthy sexual lifestyle.

Session VIII

Review of activities in the previous session and administration of instrument to obtain post treatment scores.

Control Group :A3

Session 1

- The researcher welcomes the participants
- The researcher appreciates the participants for their presence
- Administration of instruments to collect pre- test scores.

Session II

- The researcher will give a non-therapeutic talk on "youth development in the face of global economic crisis".

Session III

- The researcher welcomes the participants
- Administration of instrument to collect post test scores
- Distribution of light refreshment to the participants.

3.10 Data Analysis

The pre – test data for the three groups, Motivational Interviewing (MI) group, self –efficacy technique (SET)group and the control group were analyzed using mean and standard deviation to help establish the similarities and prove that the groups are similar in their level of HIV protective behaviours before the commencement of treatment while analysis of co – variance (ANCOVA) statistical techniques were used to test all hypotheses raised to determine the effect of treatment on the experimental groups.

CHAPTER FOUR

RESULTS

This chapter contains the results of the stated and tested hypotheses. The selected and applied statistical tests of significance are herein described and they are followed by statements confirming their acceptance or otherwise, as explained below:

Hypothesis One - This hypothesis states that there is no significant main effect of treatment on HIV risks-protective behaviour of the participants.

To test this hypothesis, analysis of covariance (ANCOVA) was adopted to analyze the post test scores of participants on their HIV risks-protective behaviour using the pretest scores as covariates to ascertain if the post experimental differences are statistically significant. The summary of the analysis is presented in table 4.1

Table 4.1: Analysis of covariance

	Sum of Squares	DF	Mean Square	F	P	Remark
Pre-score	255.21	1	225.21	23.80	0.00	S
Trt Grp	652.18	2	326,09	30.41	0.00	S
Adolescence	2.52	1	2.52	0.24	0.63	NS
Socio-Economic status	41.21	1	41.21	3.84	0.05	S
Trt Grp x Adolescence	1.96	2	0.98	0.09	0.99	NS
Trt Grp x SES	1.58	2	0.79	0.07	0.91	NS
Adolescence x SES	48.63	1	48.63	4.54	0.03	S
Trt x Adoles x SES	4.48	2	2.42	0.23	0.70	NS
Explained	960.48	12	80.04	7.46	0.00	S
Residual	1147.45	107	10.72			
Total	2107.93	119	17.71			

The results described in table 4.1 above showed that there was significant main effect of treatment on the adolescents HIV risk-protective behaviour ($F(2,107) = 30.41$, $P < 0.05$ $\eta^2=.36$). The null hypothesis of no statistically significant main effect of treatment on the adolescents HIV risk protective behaviour could not be supported with the outcome of the findings. Thus, the hypothesis was rejected. It was therefore concluded that there was significant main effect of treatment on the HIV risk-protective

behaviour of the participants. The 2-way interactions as shown in table 4.1, the treatment x adolescents (F (2,107) = 0.084, P > 0.05) was not significant; it was evident that the main effect of the treatment was not impacted on adolescents difference. The treatment x socio-economic status (F (2,107) = 0.074, P > 0.05) was not significant, this implies that the two, (treatments and socio-economic status) when considered together, did not have significant effect on the HIV risk- protective behaviour of the participants. Similarly, the adolescents age and Socio-economic status (F (1,107) = 0.148; P > 0.05) were also not significant in their interactions.

The 3-way interactions (treatment x adolescence status x socio-economic status) were not found to be significant (F (2,107) = 0.226; P > 0.05)

To further provide information on the HIV risk-protective behaviour among the three groups (Motivational Interviewing; Self efficacy technjque and control), the multiple classification analysis (MCA) was computed and the result shown in Table 4.2 below.

TABLE 4.2 MULTIPLE CLASSIFICATION ANALYSIS (MCA)

Variable + category	N	Unadjusted Dev'n	ETA	Adjusted for Dev'n	Independent + Covariate Beta
Motivational intervi	40	3.52		4.31	
Self-Efficacy	40	2.17		3.01	
Control	40	-1.65		-3.32	
			0.38		0.62
Early Adolescents	63	0.08		-0.08	
Late Adolescents	57	-0.05		0.09	
			0.12		0.14
High SES	54	0.55		0.63	
Low SES	66	0.45		-0.53	
			0.12		0.14
Multiple R Squared					0.631
Multiple R					0.672

Grand Mean 34.53

From the Multiple Classification Analysis (MCA) table, it was evident that the motivational interview group had the highest adjusted post test mean score ($\bar{x}$ =38.84) followed by the self-efficacy group with the adjusted post test mean score ($\bar{x}$ = 37.54) while the control group had the least adjusted mean score ($\bar{x}$ = 31.21). These values were obtained by summing the grand mean to the respective adjusted deviations; motivational interviewing ($\bar{x}$ = 34.53 +4.31 = 38.84),self-efficacy technique ($\bar{x}$= 34.53+3.01 = 37.54) and control ($\bar{x}$= 34.53- 3.32 = 31.21). The direction of the increasing effect of the interactions on the HIV risk protective behaviour of the participants are control < self-efficacy technique < motivational interviewing. The table indicated that the independent variables jointly accounted for as much as 63.1% (MR^2 = 0.631) of the variance in the HIV risk-protective behaviour among the participants while the remaining 36.9% were due to pretest measures or other unexpected sampling errors.

Hypothesis Two - This hypothesis states that there is no significant main effect of adolescents' age on the HIV risk-protective behaviour of the participants.

The data from this study was subjected to analysis of covariance (ANCOVA) and the results were tested for significance at 0.05 alpha levels using the pretest scores as covariates. The result of the analysis as presented in Table 4.1 indicated that there was no significant main effect of age on the HIV risk-protective behaviour rating scale post test scores of early and late adolescents exposed to treatment (motivational interview and self-efficacy training) and the control group (F (1,117) = 0.235, P > 0.05). The null hypothesis of no statistically significant main effect of adolescents' age on the HIV risk-protective behaviour was supported; hence the hypothesis was accepted. It was therefore concluded that there was no significant main effect of adolescents' age on the HIV risk-protective behaviour of the participants.

Hypothesis Three - This hypothesis states that there is no significant main effect of socio-economic status on the HIV risk-protective behaviour of the participants.

To test this hypothesis, analysis of covariance (ANCOVA) was employed to analyze the post test of participants on HIV risk-protective behaviour using the pretest scores as covariates to find out if post experimental differences were statistically significant. The summary of the analysis was as presented in Table 4.1.

The results as presented in table 4.1 showed that there was significant difference in the HIV risk-protective behaviour post test scores between the low and high socio-economic status of the participants exposed to treatments (motivational interview and self-efficacy training) and the control group (F (2,117) = 3.842, P < 0.05 η^2=.14). The null hypothesis of no significant main effect of socio-economic status on the HIV risk protective behaviour of the participants was not supported with the result of the finding. Based on this finding, therefore, the hypothesis was rejected. It was, therefore, concluded that there was significant main effect of socio-economic status on the HIV risk-protective behaviour of the participants.

The computed Multiple Classification Analysis gave further information as shown in table 4 .2

From table 4.2, the performance of all the low and high socio-economic status participants exposed to treatment groups in HIV risk-protective behaviour showed that low socio-economic status participants had lower adjusted post test mean score ($\bar{x}$ = 34.53-0.53 = 34.00) while the high socio-economic status participants exposed to treatment had higher adjusted post test mean score ($\bar{x}$ = 34.53 + 0.63 = 35.16).

The high socio-economic status participants exposed to treatment (motivational interview and self-efficacy training) had adjusted post test score that was above the grand mean but the low socio-economic status participants had adjusted post test score that was below the grand mean. Invariably, the direction of increasing effect of treatment of HIV risk- protective behaviour of the participants was low socio-economic status < high socio-economic status participants.

Hypothesis Four - This hypothesis states that there is no significant interaction effect of treatments by socio-economic status on the HIV risk-protective behaviour of the participants.

Table 4.1 revealed that there was no significant interaction effect of treatment by socio-economic status on the HIV risk protective behaviour (F (2,117) = 0.74, P > 0.05). Therefore the null hypothesis that states there is no significant interaction effect of treatment by socio-economic status on HIV risk-protective behaviour of the participants is accepted.

Table 4.2 however revealed that the high socio-economic status participant performed significantly better ($\bar{x}$ = 35.18) than the low socio-economic status participants ($\bar{x}$ = 34.00).

These results were arrived at by adding the grand mean to the adjusted post test mean scores of high socio-economic status (34.53 + 0.65 = 35.18) and the grand mean to the adjusted post test mean scores of the low socio-economic status (34.53 – 0.53 = 34.00)

Hypothesis Five - This hypothesis states that there is no significant interaction effect of treatment by adolescents' age on the HIV risk-protective behaviour of the participants.

Table 4.1 revealed that the interaction effects of treatment by adolescents' age are not significant on the HIV risk-protective behaviour of participants (F 2, 117 = 0.091, p > 0.05). The null hypothesis that states that there is no significant interaction effect of treatment by adolescent age was supported by the result of the finding; the hypothesis was therefore accepted. Table 4.2, however, showed that the interaction effects of the treatment was more significant on the early adolescents participants HIV risk-protective behaviour ($\bar{x}$ = 34.53 + 0.09 = 34.62) than the late adolescents participants ($\bar{x}$=34.53 – 0.08 = 34.45) These scores were arrived at by adding the grand mean to the respective adjusted post test mean scores of the early and late adolescents HIV risk protective behaviour scores of the participants.

Hypothesis Six - This hypothesis states that there is no significant interaction effect of adolescents' age and socio-economic status on the participants' HIV risk-protective behaviour.

As presented on table 4.1, it was shown that there was a significant interaction effect of adolescents' age and socio-economic status on participants HIV risk-protective behaviour (F (1,117 = 4.54, P < 0.05 וי^2=.41). The result upheld the finding that the main effect of adolescents' age was significant on the HIV risk-protective behaviour of the participants; hence, the null hypothesis that states that there is no significant interaction effect of adolescents' age and socio-economic status was not accepted.

Hypothesis Seven - This hypothesis states that there is no significant interaction effect of treatment, adolescents' age and socio-economic status on the participants HIV risk behaviour. Table 4.1 revealed that there was no significant main effect of treatment by socio-economic status by adolescents' age on the participants HIV risk- protective behaviour. The result of the conducted study did support the null hypothesis that stated that there is no significant interaction effects of treatment by socio-economic status by adolescents age on the participants HIV risk-protective behaviour ($F(2,107) = 0.226$, $P > 0.05$), therefore, the hypothesis was accepted.

Summary of Findings

HO_1: There was a significant main effect of treatments (Motivational interviewing and Self-Efficacy techniques) on HIV risk-protective behaviour of the participants. respondents in MI had the highest score in their HIV risk- protective behaviour; followed by SET and those in control.

HO_2: There was no significant main effect of adolescents' age on the HIV risk-protective behaviour of the participants.

HO_3: There was a significant main effect of socio-economic status on the participants' HIV risk-protective behaviour.

HO_4: There was no significant interaction effect of treatment by socio-economic status on HIV risk-protective behaviour of the participants

HO_5: The interaction effect of treatments and adolescents' age was more significant on the HIV risk-protective behaviour of early adolescents than late adolescents.

HO_6: There was significant interaction effect of adolescents' age and socio-economic status on the HIV risk-protective behaviour of participants.

HO_7: The three way interaction effects of treatments, adolescents' age and socio-economic status was also not significant.

CHAPTER FIVE

5.1 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In this chapter, discussions, conclusion and recommendations based on the results of findings are presented. The sequence of discussions is in line with the result of the hypotheses vis a vis the relationship of the findings with existing findings from relevant studies. The conclusion was based on the findings of the study and recommendations made thereof.

5.2 Discussion of Findings

Hypothesis One

Hypothesis one states that there is no significant main effect of treatment on HIV risk-protective behaviour of the participants. The result reveals that there was significant main effect of treatment on the participants' HIV risk-protective behaviour hence, the hypothesis was not accepted. Adolescents are not often able to comprehend fully the extent of their exposure to sexual risk. Society, culture, and religion often compound these young people's risk by making it difficult for them to learn about HIV and reproductive health. Also, many adolescents and youths are socially inexperienced and dependent on peers thereby increasing their risk of infection. Extreme sex drive, poverty and social inexperience make the youngsters very vulnerable. The fact that adolescents and youths are particularly vulnerable is an important reason for extending interventions on prevention to those in remand centres.

Therefore, this finding has shown that if adolescents are equipped with HIV risk-protective skills, there is the likelihood of taking informed decision on healthy sexual lifestyle. This finding corroborates the views of Diclemente and Paterson (1994) that among adolescents population, HIV is largely transmitted through sexual intercourse and the sharing of drug injecting equipment but it can be prevented through appropriate behavioural changes. This finding further lends credence to the finding of Esere (2008) who examined the effect of sex education programme on at-risk sexual behaviour of school-going adolescents in Ilorin, Nigeria and reported that those in the intervention group reported less at-risk sexual behaviours than their counterparts in the control group.

Motivational interviewing has been found to have significant influence on health-risk behaviour by focusing on the provision of accurate non-judgemental

feedback regarding a client's risk and experience of health-related problems while avoiding labels, confrontation and specific interviewer-generated goals for client behaviour change (Fader 2010). Therefore, this result has proved further that MI is effective in fostering HIV risk-protective behaviours among adolescents.

Also, the result further lends credence to the findings of Zimmerman, Bandura and Mantinez -pons (1992) that self-efficacy mediates self-regulated behaviour among individuals. Bandura (1992) also explained that a sense of personal efficacy is related to better health, higher achievement and more social integration if the individuals believe they can take actions to solve their problems. In doing this, a sense of value is developed and this creates inner attitudes which bring about the urge to acquire knowledge through information gathering and consequently the desire to effect a lasting change.

Hypothesis Two

Hypothesis two states that there is no significant main effect of adolescent age on the HIV risk-protective behaviour of participants. The result revealed that early and late adolescents were not significantly different in their HIV risk-protective behaviour. Therefore, the hypothesis was accepted. The period of adolescence is a time when young people are physically capable of reproducing and cognitively aware enough to think about their sexuality. Two factors could be responsible for this: how they are educated regarding sex or sex education and how they are exposed to sexuality, will establish if they do or do not develop a healthy sexual identity. Also, at this stage, adolescents are in search of knowledge on sexuality, if adults do not provide accurate information; they (adolescents) are forced to rely on their peers or other potentially inaccurate sources. (Huebner,2009).This finding confirms previous studies of Offor, Ogbeide and Unugbe (1998) who discovered in a study to determine the prevalence of HIV in Benin, Nigeria that adolescents aged between 13 and 15 years had at one time or the other been treated for sexually transmitted diseases and that of Akinboye (2004) who discovered that among Brazilian, Hungarian, Kenyan and Nigerian adolescents, boys aged between 15 and 19 had engaged in sexual activity before the age of 15.On the other hand, indicators of youth vulnerability and responses to HIV and AIDS in Nigeria from the National HIV/AIDS and Reproductive Health Survey Report(2013) show that HIV prevalence rate among 15-19 years old adolescents between 2008 and 2012 was 2.1% while 1.9% was recorded for those between 20-24 and this corroborates

the United States' Centre for disease control (2012) assertion that many young people engage in sexual risk behavior that can result in unintended health outcomes.

Hypothesis Three

Hypothesis three states that there is no significant main effect of socio-economic status on the HIV risk-protective behaviour of the participants. This hypothesis was not accepted because it was discovered that there was significant main effect of socio-economic status on the HIV risk-protective behaviours of participants. This finding has invariably shown that the socio-economic status of adolescents impacted on their HIV risk-protective behaviours. This finding corroborates earlier studies of Abu and Akerele (2006) which found out that among in-school adolescents in Ibadan, Nigeria, socio-economic status of parents based on indices such as parents' income, religion, type of housing, nature of job, social values and the environment affect the sexual behaviour of adolescents either positively or negatively. If teens feel parental support, feel a connection to their parents, and are aptly supervised by them, they are less likely to have sexual intercourse and if parents model sexual risk-taking behaviour, such as early child bearing or permissive attitude towards pre-marital sex, adolescent from such environment could engage in early sexual intercourse.

Also, Sjoberg (2000) contended that socio-economic factors within the society have also been identified as having an important bearing on facilitating certain types of protective or risk-related behaviours among adolescents, they may affect the opportunity for, timing of and patterns of behaviours, such as sexual, social, health seeking, or recreational behaviours that can impact on the risk of HIV infection

Hypothesis Four

The fourth hypothesis which states that there is no significant interaction effect of treatments by socio-economic status on the HIV risk-protective behaviour of the participants. This hypothesis was not accepted as the result shows that the high socio-economic status participants performed significantly better than the low socio-economic status participants in the treatment groups. The plausible reason for this is that in most Nigerian families, issues relating to sex are not freely discussed with adolescents especially in low socio-economic background families while parents in the high socio-economic background families encourage their wards to discuss intimate sexual relationship through the use of appropriate parent-child communication skills

and this provides opportunity for adequate guidance on sexual issues. This finding lends further credence to earlier studies by Taris and Senicin (1997); Ranmirez-Vallas Zimmerman and Newcomb (1998) and Upchurch et al, (1999) which showed that high socio-economic status of parents most often has been found to be associated with lower risk of having had intercourse and later sexual debut of adolescents. Findings by Miller, Benson and Galbraith (2001) showed that Parents' style of communication is related to adolescent sexual behavoiur; also, open, positive and frequent communication about sex was found to be related to adolescents being abstinent, delaying their first sexual intercourse, as well as having fewer partners.

In the same vein, this finding corroborates Collier's (1997) earlier conclusion that adolescents appear to thrive developmentally when their family setting is one of warm relationship, one in which adults and children are permitted to express their view points and assert their individuality; and one in which parents expect mature behaviour from teenagers, establish and enforce reasonable roles and; on the contrary, if the relationship is weak and autocratic, the adolescents will find a way to run away and find refuge and solace in what ever makes them happier. Thus if a close and cordial relationship can be established between the parents and the adolescent, it will foster acceptable training and acceptability of family norms and values in relation to sexual behaviours and other devised values and norms of the family.

This finding is however different from Uwakwe's (1998) finding that adolescents from high socio-economic background showed a higher tendency towards sexual risk-taking behaviours than those from low socio-economic orientation.

Hypothesis Five

Hypothesis five states that there is no significant interaction effect of treatment and adolescents' age on the HIV risk protective behaviour of the participants. The multiple classification analysis revealed that the interaction effects of treatment were more significant on the early adolescents than late adolescents; therefore, the hypothesis was not accepted. The plausible reason for this may be that at early adolescence, behavioural experimentation is at play and early adolescents may not be as adventurous as their late adolescent counterparts in terms of HIV risk-taking behaviours. This finding shows that the treatment package impacted more on the early adolescents than late adolescents. This is in agreement with Hargreaves, (2002) who

found that adolescents act based on their knowledge of a particular problem, and of a potential behavioural "solution" to the identified problem. Behavioural intention is seen as a product of the adolescent's attitude towards the behaviour, perceived subjective norms, and self-efficacy in performing a particular behaviour. In the presence of these predicators of sexual behaviour, behavioural intention is highly predictive of actual behaviour if the adolescent has the necessary skills to perform the behaviour and in the absence of any environmental constraints. This finding corroborates Bakare's (2002) earlier finding that the average age for first coital experience among adolescents in southwestern Nigeria was 16.5 years among males.

Hypothesis Six

Hypothesis six states that there is no significant interaction effect of adolescents' age and socio-economic status of participants HIV risk-protective behaviour. The result shows that the interaction effects of age and socio-economic status of participants was significant, hence, the hypothesis was not accepted. This shows that among the study participants, HIV risk-protective behaviour pattern differs based on their age and socio-economic status. The plausible reason for this may be that age or stage of development and socio-economic background influence comprehension and interpretation of sexual risk-taking behaviours by adolescents. This finding is supported by Silverman-Watkins and Sprafkin (1983) who reported that 12-year-old adolescents were less likely to understand suggestive material that can promote promiscuity than 14 and 16 year adolescents.

On the other hand, the above finding lends credence to Owuamanam (1997) who posited that parents from low socio-economic background use more physical punishment while parents from high socio-economic background use reasoning discipline more frequently which may influence the adolescent's decision on sexual relationship. Also, Aremu (2001) asserted that those who come from the low strata of socio-economic conditions where accommodation is a single room; where parents cannot fulfil the legitimate needs of their children; where the children do not feel secured and emotionally satisfied tend to be sexually permissive. In the same vein, Whitbeck, Conger and Kao (1999) reported a mixed outcome by age, with parental monitoring of younger adolescents leading to decreased sexual activity and among older adolescents leading to increased sexual activity.

Hypothesis Seven

Hypothesis seven states that there is no significant interaction effect of treatment, adolescent age and socio-economic status on the participants HIV risk-protective behaviour. The result shows that the three way interaction effect of treatment, socio-economic status and adolescent age on the participants' HIV risk-protective behaviour was not significant; therefore, the hypothesis was accepted. Most adolescent sexual behaviours carry with them some element of risk; the critical question appears not to be adolescents' attitudes toward sex, but rather their attitudes toward protecting themselves from sexual risk. A motivated adolescent with an optimistic view of the future may choose to remain abstinent, or may choose to become sexually active, but only in a very careful and relatively protected manner. Although abstinence-only advocates would rightly point out that the abstinent adolescent faces the fewest risks, it is unarguable that both the abstinent and the highly responsible and motivated sexually active adolescents face dramatically lower levels of risk than do unmotivated risk-taking adolescents. This latter group is unlikely to take pleas for abstinence or for sexual-responsibility seriously, unless they are presented in a way that provides a vision of a future role for them that they will want to safeguard. Therefore, appropriate psychotherapeutic interventions like this study can cause behavioural change. This is in agreement with the views of Diclemente and Peterson (1994) and Maruschak (2005) that HIV among high-risk individuals can be prevented through appropriate behavioural changes and opportunities to reach and engage them in HIV prevention, treatment and care.

5.3 Implications of the Findings

The present study provides empirical support for the effectiveness of motivational interviewing and self-efficacy techniques in fostering HIV risk protective behavoiurs among adolescents in correctional centres; the major focus of such centres is on the rehabilitation of the inmates before they are integrated back into the society. During training sessions, it was evident that participants were aware of HIV and its mode of transmission but were ambivalent on the desired behaviours to protect themselves from the scourge of the disease. Therefore, psychological interventions that can help resolve these ambivalent feelings about HIV transmission and have a good judgment of their capabilities to organize and execute courses of action required to

manifest HIV risk protective behaviour would be an added advantage to the entire inmates rehabilitation programme.

The results in this study have implication for counselling psychologists, Nigerian Prisons Service, National Action Committee on AIDS and other stakeholders in the rehabilitation of inmates. The implication is in terms of developing psychological interventions that can foster HIV risk-protective behaviour among inmates so that high prevalence rate of HIV in correctional settings can be checked with the same level of commitment like those outside remand centres.

The results of this study also have implication for the general economic wellbeing of the Nigerian nation in which adolescents form the bedrock of her population. As it was revealed that socio-economic factors impacted on adolescents' HIV risk-protective behaviour, therefore, any effort put in place to improve the quality of life of the entire citizenry will invariably have a contributive effect on adolescents' healthy lifestyles within and outside remand centres.

5.4 Limitations of the Study

This study has used two therapeutic interventions aimed at fostering HIV risk-protective behaviours among adolescents in remand centres. However, in the process of achieving the objectives of the study, the researcher encountered certain limitations. The study was limited to 120 participants due to the regimented nature of administration in the remand centres which resulted in the alteration and adjustment of the training schedules in the course of the programme. Also, time and financial constraints did not allow for the study to be extended to a larger number of participants which could have enhanced the result.

Apart from the above, socio-political factors also posed some challenges to this study; there was heightened state of insecurity in the city housing one of the remand centres used for the study and this necessitated some adjustments in the training schedules.

5.5 Conclusion

This study is pivoted on the use of two psychotherapeutic measures (motivational interviewing and self-efficacy techniques) to foster HIV risk-protective behaviour among adolescents in remand centres. The findings of this study revealed that the two treatments were effective in fostering HIV risk-protective behaviours of the

participants with participants in the motivational interviewing group showing higher HIV risk-protective behaviour than those in self-efficacy group. Similarly, those in the self-efficacy group showed better HIV risk-protective behaviour than those in the control group. Further, early and late adolescents as well as parental socio-economic background were incorporated to capture age and socio-economic factors which may account for variance in risk-protective behaviour. Also, the study indicated a significant main effect of socio-economic status on the HIV risk-protective behaviours of the participants.

5.6 Recommendations

In view of findings of the study, the following recommendations are made:

Adolescents in remand centres have shown from the evidence of this study that they are responsive to treatments. Since the remand centres are saddled with the social responsibility of correcting the deviant behaviours of adolescents in their custody, efforts could be made to incorporate the techniques of the two treatment programmes (MI and SET) in the rehabilitation schedule of the centres.

The findings of this study can be extended to other inmates including adult prison inmates, with a view to exposing them to skills that are needed to protect themselves against the spread of HIV transmission upon their release from these reformation centres.

The authorities of remand centres, should put in place measures that can assist inmates to elicit HIV risk-protective behaviour by discouraging them from sharing sharp objects among themselves and encouraging them to have their individual tools such as clippers, blades and needles in order to further emphasize the dangerous effects of sharing such objects in relation to HIV transmission.

Health intervention programmes within the remand centres should address the risk associated with health-risk activities occurring among inmates by discouraging internal and external forces which encourage inmates to take health risks; also, such intervention should focus on ways of fostering the development of positive life skills to satisfy their physical and psychological needs without putting their lives in jeopardy. To achieve this, there is an urgent need for a legal framework that will address access to quality health services and promote HIV prevention programmes among inmates.

Improved health and welfare services for inmates need to be addressed through policy and legislative reforms at national level. This can be achieved by encouraging

collaboration between the Ministry of Justice, the Police and civil society to step up the advocacy for improved conditions in remand centres accross Nigeria.

Lastly, inmates' right to voluntary counselling and testing, which is one of the crucial approaches in the management of HIV/AIDS, should not be infringed upon by making them undergo the test by force. This may have some unwholesome consequences on the status of inmates who test positive to HIV/AIDS.

5.7 Suggestions for further study

This study focused on fostering HIV risk-protective behaviour using motivational interviewing and self efficacy training among inmates of remand centres in Nigeria. Although the target for this research work was male inmates of Borstal institutions between the ages of 13 and 20 years, they are not the only group within the Nigerian prison system that is vulnerable to HIV transmission. In order to further extend the scope of this research, further work could be focused on interventions that can foster HIV reduction among prison inmates that are above the adolescent age brackets.

Also, the study could be extended to evaluating interventions which can be directed at adolescents from low socio-economic background in order to have a holistic approach towards stemming the tide of HIV transmission among adolescents in correctional settings.

Contributions to Knowledge

This study has been able to contribute to knowledge in the following areas:

- In spite of the advancement in scientific research, there is still no preventive vaccine or medical cure for HIV infection. Thus, efforts to change high-risk behaviours remain the only available means to prevent its transmission. Therefore, this study has contributed to knowledge by looking into the effectiveness of two psychological interventions (motivational interviewing and self-efficacy techniques) in fostering HIV risk-protective behaviours among adolescents in remand centres.
- The study has thus demonstrated the relevance of psychological interventions in helping adolescents in correctional institutions to be exposed to skills which can assist them in eliciting healthy sexual lifestyle which will further complement the rehabilitation programmes in the centres.

- It has also provided empirical data to assist counselling psychologists, Prison officials and social workers in successfully navigating the underlying psychological experiences of adolescents (within the context of the two interventions used) on risky sexual behaviours which can facilitate the fashioning out of appropriate measures to assist such vulnerable adolescents.
- This study attempted to fill a gap in research by bridging the gap between the efforts put in place to foster HIV risk-protective behaviours among adolescents outside remand centres and those in remand centres because the prevalence of HIV among those in remand centres can threaten any effort put in place to stem the tide of the disease in the larger society.

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APPENDIX 1

UNIVERSITY OF IBADAN
FACULTY OF EDUCATION
DEPARTMENT OF GUIDANCE AND COUNSELLING

Dear Respondent,

I am a student of the above mentioned institution, conducting a research study on motivational interviewing and self-efficacy training in fostering HIV risk-protective behaviour among adolescents in Nigerian Borstal Centres.

These instruments are designed to collect data from male adolescents. Enclosed herewith are questions designed to collect information for the purpose of research only. Each set has its own instruction and items.

For each item, respond as accurately and honestly as you can. Do not omit any item, please. Your responses will be kept strictly confidential and will be of assistance in enhancing the outcome of this research. Do not write your name and do not spend more than 30-35 minutes to answer the questions.

Thank you.

Answer the following question by ticking (√) in the space provided for the item of your choice:

THE HIV RISK-TAKING BEHAVIOUR SCALE

Drug Use Section:

1. How many times have you hit up (i.e. inject yourself with any drugs) in the last few months?

Hasn't hit up..... 0

Once a week or less..... 1

More than once a week..... 2

(but less than once a day)

Once a day..... 3

2-3 times a day..... 4

More than 3 times a day..... 5

2. How many times in the last month have you used a needle after someone else had already used it?

No time..... 0

One time..... 1

Two times..... 2

3-5 times 3

6-10 times 4

More than 10 times..... 5

3. How many different people have used a needle before you in the last month?

None 0

One person..... 1

Two people 2

3-5 people..... 3

6-10 people 4

More than 10 people..... 5

4. How many times in the last month has someone used a needle after you have used it?

No times..... 0

One time..... 1

Two times..... 2

3-5 times 3

6-10 times 4

More than 10 times..... 5

5. How often, in the last month, have you cleaned needles before re-using them?

Doesn't re-use..... 0

Every time..... 1

Often..... 2

Sometimes..... 3

Rarely..... 4

Never 5

6. Before using needles again, how often in the last month did you use bleach to clean them?

Doesn't re-use..... 0

Every time..... 1

Often..... 2

Sometimes..... 3

Rarely..... 4

Never 5

7. How many people, including clients, have you had sex with in the last month?

None 0

One 1

Two..... 2

3-5 people..... 3

6-10 people 4

More than ten people 5

8. How often have you used condoms when having sex with your regular partner(s) in the last few months?

No reg. partner 0

Every time..... 1

Often..... 2

Sometimes..... 3

Rarely..... 4

Never 5

9. How often did you use condoms when you had sex with casual

partners?

No casual Partners..... 0

Every time..... 1

Often..... 2

Sometimes..... 3

Rarely..... 4

Never 5

10. How often have you used condoms when you have been paid for?

Sex in the last months?

No paid sex..... 0

Every time..... 1

Often..... 2

Sometimes..... 3

Rarely..... 4

Never 5

11. How many times did you have anal sex in the last months?

No time..... 0

One time..... 1

Two times..... 2

3-5 times 3

6-10 times 4

More than 10 times..... 5

HIV RISK PROTECTIVE BEHAVIOUR SCALE

As an unmarried person, please consider the following situation: imagine that you meet a person with whom you would like to have sex or intimate relationship, how likely is it that you would have sex with them.

For the following, please indicate whether the activity is very likely, somewhat likely, somewhat unlikely, or very unlikely to place a man at risk of getting AIDS. (circle the number of your answer).

5 - VERY LIKELY
4. - SOMEWHAT LIKELY
3 - SOMEWHAT UNLIKELY
2 - VERY UNLIKELY
1 - DON'T KNOW

1.	Donate blood.	1 2 3 4 5
2.	Share needles, syringes, blades and other sharp objects.	1 2 3 4 5
3.	Have an unscreened blood transfusion.	1 2 3 4 5
4.	Fail to use condoms or other latex protection with every sex partner and every sexual act.	1 2 3 4 5
5.	Have sex with a girl who used to shoot up drugs but does not shoot up any more.	1 2 3 4 5
6.	Have sex with a girl who has sex with a person who shoots up drugs	1 2 3 4 5
7.	Have sex with a girl who used to have sex with other men but no longer does.	1 2 3 4 5
8.	Have sex with a girl who has the AIDS virus.	1 2 3 4 5
9.	Have sex with a person who does not look sick but has HIV	1 2 3 4 5
10.	Have more than one sex partner within a six-month period	1 2 3 4 5
11.	Have sex with 2 or more girls.	1 2 3 4 5
12.	Knowingly had sex with someone with HIV or AIDS.	1 2 3 4 5
13.	Knowingly had sex with someone who has a sexually transmitted disease.	1 2 3 4 5
14.	Have intimate sexual relationship with a girl you are not sure of her HIV status.	1 2 3 4 5

FAMILY AND ENVIRONMENTAL SEXUAL RISK SCALE

SECTION A: PERSONAL DATA

Age (As at last birthday)…… Parent's Occupation: Business ( ) Civil servant ( ) Farming ( ) Artisan ( )

Average monthly family income: N100,000 and above ( ) BelowN100,000 ( )

Types of residence: Rented ( ) Personal ( )

Types of Accommodation: Flat ( ) Duplex ( ) Face to face ( )

Father's Education level: Tertiary ( ) Secondary ( ) Primary ( ) None ( )

Mother's Education level: Tertiary ( ) Secondary ( ) Primary ( ) None ( )

No of children in your family 1-4 ( ) 5 and above ( )

Average monthly 'pocket-money': N10, 000-20,000 ( ) Below N10, 000( )

Type of school attended: Private ( ) Public ( ).

SECTION B

Please indicate the extent to which each of the statements below affects you as an individual.

Circle the letter that corresponds with your opinion on each of the statements.

1-Not at all characteristic of me, 2-Slightly characteristic of me, 3-Somewhat characteristic of me, 4-Moderately characteristic of me, 5-Very characteristic of me

1.	My family background encourages me to make friends with the opposite sex easily.	1 2 3 4 5
2.	I wish to have a housing arrangement where my sexual life would be under my control.	1 2 3 4 5
3.	I can easily afford the expenses of taking a girl out	1 2 3 4 5
4	Even if I don't want to think about sex, my environment would not allow it.	1 2 3 4 5
5.	If I am relocated from my present residence I would be able to maintain a healthy sexual life.	1 2 3 4 5
6.	My parents travel a lot and this gives me liberty to make/ receive female friends' visits .	1 2 3 4 5
7.	Those who do not have many girl friends do so because they cannot afford it and not because of diseases	1 2 3 4 5 1 2 3 4 5
8.	In case of any sexually transmitted disease, I can afford the hospital bill	1 2 3 4 5

9.	When you have plenty of money there is tendency of having Many female friends	1 2 3 4 5
10.	My sexual behaviour is largely controlled by factors around me	1 2 34 5
11.	I am satisfied with the way my sexual needs are currently being met.	1 2 3 4 5
12.	I am motivated to avoid engaging in risky sexual behaviour because my parents are strict.	1 2 3 4 5
13.	I do not engage in risky sexual behaviour because my religion is against it	1 2 3 4 5
14.	My family rules and routines discourage me from engaging in sexual relationship with the opposite sex	1 2 3 4 5
15.	I am concerned about how the sexual aspect of my life appear to my neighbours and friends	1 2 3 4 5
16.	My relationship with the opposite sex is to a large extent controlled by my Parents.	1 2 3 4 5
17.	My parents are worried that I would hurt myself by engaging in sexual relationship	1 2 3 4 5
18.	My parents are overprotective of me and this affects my relationship with the opposite sex.	1 2 3 4 5
19.	I do discuss my intimate relationships with the opposite sex with my parents.	1 2 3 4 5
20.	The choice of my friends is closely monitored by my parents.	1 2 3 4 5
21.	I am not free to make friends with the opposite sex like others.	1 2 3 4 5
22.	I have the ability to take care of any sexual needs and desires that I may have.	1 2 3 4 5
23.	I avoid engaging in “risky” (i.e., unprotected) sexual behaviour because of what I hear from others.	1 2 3 4 5
24.	The type of environment I live make me feel that the sexual aspects of my life will be positive and rewarding in the future.	1 2 3 4 5
25.	I derive a sense of self-pride from the way others perceive and react to the sexual aspects of my life.	1 2 3 4 5
26.	The way others perceive and react to the sexual aspect of my life makes me afraid of contracting sexually transmitted diseases.	1 2 3 4 5
27.	My environment makes me think about sex more than anything else.	1 2 3 4 5

28. I am not very direct about voicing my sexual needs and preferences to my parents 1 2 3 4 5
29. My sexual behaviors are largely controlled by people other than myself (e.g., my partner, friends, family). 1 2 3 4 5
30. I am somewhat passive about expressing my own sexual desires. 1 2 3 4 5
31. I am quick to notice other people's reactions to the sexual aspects of my own life. 1 2 3 4 5
32. In order to be sexually active, I have to conform to other more powerful individuals around me. 1 2 3 4 5
33. The sexual aspect of my life is satisfactory when compared with others around me. 1 2 3 4 5
34. I do not hesitate to discuss my sexual relationship with others around me. 1 2 3 4 5
35. I feel sad when I think about my sexual experiences. 1 2 3 4 5
36. I responded to the above item base on:
    (A) A current sexual relationship.
    (B) A past sexual relationship.

TREATMENT PACKAGES

EXPERIMENTAL GROUP A

Motivational Interviewing (MI)

SESSION ONE

TOPIC: Orientation and Administration of instrument to obtain pre-test scores,

Objectives:

i. To welcome participants

ii. To ask for their support and cooperation

iii. To establish rapport between the research and participants in order to elicit readiness of the participants in the programme.

iv. Explanation of the lay-out of the programme.

v. Explanation of the importance of the programme to the participants.

vi. Administration of pre-test instrument

Introductory Address by the Researcher

Good morning dear friends. It is my pleasure to be in your presence for this training programme which is designed to help fashion out practical skills we can employ to protect ourselves from the scourge of HIV infection. As we may all be aware, HIV is a global problem which has generated a lot of attention from government agencies, non-governmental organizations and religious bodies. Therefore, there is an immediate need for you to be equipped with skills that can make you exhibit HIV risk protective behaviour while you are here and upon your release from this centre.

In Nigeria today, it is estimated by the World Health Organisation(2008) that the HIV prevalence rate is 4.1% of the population and that Adolescents are among the most vulnerable set of people within the population. The International Planned Parenthood Federation (IPPF, 2006) reported that each year at least 111 million new cases of curable STIs occur among young people aged between 10 and 24. Also, UNAIDS (2006), stated that many young people still lack accurate, complete information on how to avoid exposure to HIV. Some years ago, people denied the existence of HIV in Nigeria but today, the reality has dawned on all of us as there is substantial evidence that some people are already having the disease in our society. This training programme is designed to help you acquire skills that will promote HIV risk protective behaviour. Therefore, your contributions will be of utmost importance to this programme. In this regard, I want to encourage you to actively participate

throughout the sessions of this programme. Each session will be carried out within one hour.

The researcher will allow participants to ask questions after which the dates and time of subsequent meetings will be spelt out. Also, the importance of punctuality will be stressed to ensure the success of the programme.

Closing Remark: The researcher will appreciate the participants for their availability and read out the time table for the programme.

SESSION TWO

Topic: Introduction to Motivational Interviewing

Objectives: To equip the participants with the basic tenets of motivational interviewing.

b. To make them aware of their vulnerability to HIV infection.

What is Motivational Interviewing?

Motivational interviewing is a therapeutic approach that was developed by the psychologists, Rollnick and Miller in 1991. This therapeutic approach is based on four basic principles namely: Expression of Empathy, Developing discrepancy, Rolling with resistance and supporting self Efficacy beliefs.

Expressing Empathy

- The Researcher discusses the various ways though which adolescents are vulnerable to HIV transmission with a view to expressing empathy with the participants. The researcher does this based on the assumption that the period of adolescence is characterized with a lot of behavioural deviations including behaviours that are potentially risky which can make them susceptible to HIV transmission.
- The Researcher focuses on the participants' awareness of their own thoughts and abilities in an effort to increase their confidence and reliance on their own decision-making skills. In doing this, the researcher will consider some of the thoughts of the participants about HIV and ask them what personal efforts they can make to promote risk protective behaviour.
- The researcher leads the participants to identify ambivalent feelings about HIV with a view to making clarifications between such feelings

and the reality of HIV infections. For example, youths believe that it is almost impossible to stay off sex completely but at the same time, the devastating effect of HIV must be put above all other considerations.

- The researcher leads the participants to discuss the discrepancies between the clients' present behavioural pattern and values with a view to appreciating how this discrepancies can influence their future (for example, I want to become a Lawyer but there is need for medical well-being in order to achieve this; as such, I must not engage in risky behaviour which can affect my health).

Discussion Questions.

1. Can one be free from HIV infection
2. Does HIV respect any person?

SESSION THREE;

Topic: Developing Discrepancies between participants' risk behaviour and assumptions about HIV infection.

Objective: 1. To assist participants in identifying those wrong assumptions about HIV
2. To help the participants appreciate the enormity of such wrong assumptions.

Introductory Remarks

- Researcher welcomes the participants.
- Reviews the assignment given in the last session.
- Introduces to the topic for the day
- The Researcher writes down the major assumptions of adolescents about HIV such as:

(i) "Some people have immunity against HIV"

(ii) "Only people who look sickly can contract HIV"

(iii) "Not having more than a girlfriend is a sure way of not contracting HIV"

(iv) "I have a strong feeling that I can't contract HIV"

(iv) "HIV exists only among the whites"

(vi) "HIV is a myth because I'm yet to see someone who has the virus"

(vii) "There are drugs that can cure HIV"

(viii) "Having sexual intercourse occasionally can prevent one from contracting HIV"

(ix) "Using preventive measures during sex does not make one enjoy sex"

(x) "Taking herbal mixtures can prevent one from contracting HIV"

- The Researcher leads the participants to discuss these myths one after the other by showing to the participants evidences from researchers, publications of UNICEF, UNAIDS, WHO, NACA and Federal Ministry of Health to dispel these myths.
- The Researcher emphasizes that it is only the facts that have been scientifically proven about HIV infection can be relied on.
- The Researcher asks the participants to state those things they value in relation to their life-goals with a view to assisting them to appreciate how such life-goals can be threatened by HIV.
- The Researcher ends the session by reading out the wrong assumptions about HIV transmission and ask the participants to answer YES or NO to each of the assumptions.

Assignment

1. Identify five ways through which HIV can affect one's life goals.

SESSIONS FOUR & FIVE

Topic: Rolling with Resistance

Objectives:1.To identify participants'resistant views that are peculiar to adolescents about HIV by encouraging them to express it.

2. To identify the view of participants on the issue of abstinence which most adolescents find difficult or impossible to practice.

- The Researcher identifies the areas where the participants' resistance lies and then reflects on those areas of resistance with a view to decreasing those factors which are responsible for the resistance. For example, some participants might be of the opinion that having sex occasionally may not lead to HIV infections; in such a case, the researcher explores the reason(s) for this belief.

- The Researcher leads the participants to discuss abstinence which most people regard as impossible.

Meaning of Abstinence

Abstinence means holding oneself back deliberately and often with an effort of self-denial from any ultimate sexual practice (genital) or behaviour. This strategy is particularly useful for people who are dating, giving them time to gradually get to know one another before they face the emotional involvement brought about by the high degree of intimacy.

Facts about Abstinence

Facts are ideas or beliefs which have been proven to be true. Facts about abstinence include:

a. Total abstinence offers 100% protection against unwanted pregnancy and sexually transmitted infections including HIV.
b. It is the surest method of birth control effective and 100% free of physical side effects.
c. It does not result in the malfunction of any body organ.
d. It is culturally and religiously acceptable for most individuals.
e. It is an appropriate behaviour and enhances self-esteem.
f. It can be a test of love. "You would wait if you love me". It can allow time to test the endurance of love beyond the first attraction.

Myths about Abstinence

Myths are ideas, beliefs or statement that are not true. Myths about abstinence include:

a. It causes stomach ache.
b. It can cause infertility and impotence in the future.
c. Those who abstain are not normal.
d. Abstinence can make the testicles burst
e. Prolonged abstinence causes mental problems.

Types of Abstinence

There is a long history of abstinence among adults even though it is often discussed only in relation to adolescents.

1. Life long Abstinence: Certain religious figures, such as the Catholic Priest, Catholic Reverend Sisters and Buddhist monks, abstain throughout life in order to maintain purity and remain focused on their role as religious leaders.
2. Delayed Abstinence: Because children can be an outcome of sexual intercourse, some people wait until they are older and more established in a healthy relationship before engaging in a sexual act that could lead to pregnancy.
3. Periodic Abstinence: May couples routinely abstain from sexual intercourse after a child is born, while the mother is nursing a baby or during menstruation.
4. Secondary Abstinence: This refers to a situation where someone who has had sexual intercourse decides to abstain until later in the future.

Why Adolescents do not abstain

Some adolescents engage in sexual intercourse due to the following reasons:

a. Pressure from peers, friends and partners.
b. Parental neglect and a need to feel loved by someone.
c. To show loyalty to a partner and maintain a relationship.
d. To prove their maturity.
e. To satisfy curiosity and to experiment.
f. The belief that everyone is engaged in sexual activity.
g. Lack of knowledge, information and skills on abstinence.
h. Lack of knowledge about the consequences of engaging in sexual intercourse.
i. Media message showing many different people engaged in casual sex, with little responsibility.
j. Societal economic pressure.

The reasons may be different for boys than for girls. For some boys, engaging in sexual intercourse is a sign of manhood. Some males even brag about having intercourse with a partner, when it is actually not true. The pressure to do what a

person thinks other males are doing can be very strong. Some males have observed that older males seem to have many sexual partners and believe that is what they are to do.

Girls may want to have a relationship and feel that the only way to express love or be loved is to engage in a sexual relationship as the ultimate proof. It is even harder when the partner is suggesting that the best way to show love is to share the intimacy of sexual intercourse or other sexual acts.

Assignment

1. What does the word 'abstinence' mean?
2. List four facts and four myths about abstinence and explain why any two from your list have been classified as either facts or myths.

SESSION VI: Continuation of Rolling with Resistance

- The researcher starts the session with a review of the assignment given during the last session.
- The researcher discusses the reasons why adolescent find it difficult to abstain.

Consequences of not Abstaining

What are the consequences that adolescents who do not abstain face? These include:

a. Unwanted or teenage pregnancy.
b. Risk of contracting STIs/HIV (which could lead to untimely death).
c. Emotional problems.
d. Unsafe abortion.
e. Truncated education and limited employment opportunities.
f. Family rejection.

Why Adolescents should abstain

a. They are not emotionally ready.
b. To avoid religious or cultural disapproval.
c. To avoid negative health consequences such as unwanted pregnancy.
d. To live up to parental expectations.
e. To stand up for personal values about sexual activity.
f. To attain educational and career goals.

g. Assurance of not having to deal with the negative emotional consequences of engaging

h. Relief in not having, at each new encounter, to decide whether or not to abstain.

i. Gives time to develop a deeper emotional intimacy and friendship.

j. Less emotional trauma when a relationship breaks up than if sexual intercourse has occurred.

k. It reduces risk of cervical cancer – researchers are suggesting that early sexual activity and multiple sexual partners increase the risk of cervical cancer in women.

l. It allows a person to feel good about his/her decision (high self-esteem).

Behaviour and skills that promote Abstinence

1. Decision-making about abstinence: determination and commitment to the decision and carrying out the decision.
2. Communication: Being able to communicate sexual limits to one's partner and being able to reach a compromise, achieve mutual understanding and cooperation. It is important to talk to one's partner about one's decision on abstinence.
3. Acquiring knowledge and information: About the consequences of engaging in early sexual intercourse.
4. Identifying goals: Moving towards the achievement of goals; ensuring the realization of a positive vision for a successful and healthy future.
5. Self control: Being able to control one's action and behaviour in sexual situations is necessary. Also, staying away from alcohol or drugs which can impair one's judgement.

The SWAT Technique

SWAT: The 'SWAT' technique is one of the ways of learning how to negotiate abstinence with a partner:

S – 'Say No' to unsafe behaviour (Refuse the behaviour in a positive and assertive way)

W - Be prepared to explain 'why' you want to be safe (Provide a good explanation as to why you want to be safe. This will help your partner understand your real concerns and prevent him or her from reacting in a negative way)..

A - Provide 'alternatives' (if you feel like). This shows you are interested in continuing your relationship with the other person.

T - Talk it out (Communicating your feelings help the relationship to grow).

Guidelines for Saying 'No' Effectively

Saying No effectively might be difficult, especially to a person one cares about. The decision to say 'No' requires a lot of determination and commitment. Following some guidelines may help one in saying 'No' effectively:

a. Use and repeat the word 'No' often.
b. Send a strong non-verbal 'No' with one's body language e.g. use hand gestures and body language to emphasize the point.
c. Project a strong, business like tone of void.
d. Look directly at the person and maintain eye contact.
e. Stand straight and tall.
f. Use a serious facial expression ("I mean it" face).
g. Don't send mixed signals.

Adolescents must remember that:

1. Sex is not the only way of showing love to someone.
2. There are many other rewarding components to a relationship (sharing joy and sadness, supporting one another to attain life goals).
3. One must accept and respect a partner's decision.
4. One should put oneself in the other person's position to understand how the person feels.
5. One can speak to responsible adults if under pressure.

Assignment

1. Write down five benefits of abstaining from sexual intercourse during adolescence.
2. Identify four skills that promote abstinence.

SESSION VII: Supporting Self-Efficacy

Objective: To identify and support participants' beliefs about their capabilities to elicit risk protective behaviour.

- The researcher starts the session by discussing the assignment given during the last session.
- The researcher asks the participants what they can do on their own to promote risk-protective behaviour and why they think they are capable of doing such things.
- After stating these capabilities, the researcher encourages the participants on the possibility of the continuity of such capabilities without minding what others may say to discourage them.
- The researcher asks participants about their past successes on resisting pressure to engage in unsafe sexual intercourse.
- The researcher goes further to ask what made the resistance work out and what enabled the participants to be successful at that particular time.
- The researcher shows affirmation to such successes by saying encouraging words such as 'wonderful', very good", 'I like that', keep it up'
- The researcher asks participants the lesson learned when they attempted to resist the pressure of engaging in unprotected sex but failed with a view to encouraging them to put such lesson into practice.

Assignment: Mention two personal efforts that you can make to prevent unsafe sex.

Session VIII: Revision of all activities in the previous sessions and administration of post treatment measures

- The researcher goes through the activities in the previous sessions with the participants
- Administration of instruments to obtain post treatment measures.
- The researcher assembles the participants to appreciate them and ask for their comments on their experiences during the sessions.

- Exchange of pleasantries and contacts between the researcher and participants

- Taking of photograph with all participants and instructors of the remand centre.
- Distribution of light refreshment to the participants

EXPERIMENTAL GROUP B

SELF-EFFICACY TRAINING (SET)

SESSION ONE

TOPIC: Orientation and Administration of instrument to obtain pre-test scores,

Objectives:

i. To welcome participants

ii. To request their support and cooperation

iii. To establish rapport between the researcher and participants in order to elicit readiness of the participants in the programme.

iv. Explanation of the lay-out of the programme.

v. Explanation of the importance of the programme to the participants.

vi. Administration of pre-test instrument

Introductory Address by the Researcher

Good morning dear friends, it is my pleasure to be in your presence for this training programme which is designed to help fashion out practical skills we can employ to protect ourselves from the scourge of HIV infection. As we may all be aware, HIV is a global problem which has generated a lot of attention from government agencies, non-governmental organizations and religious bodies. Therefore, there is an immediate need for you to be equipped with skills that can make you exhibit HIV risk protective-behaviour while you are here and upon release from this centre.

In Nigeria today, it is estimated by the World Health Organisation that the HIV prevalence rate is 5.2% of the population and that Adolescents are among the most vulnerable set of people within the population. The International Planned Parenthood Federation (IPPF, 2006) reported that each year, at least 111 million new cases of curable STIs occur among young people aged between 10 and 24. Also, UNAIDS (2006), stated that many young people still lack accurate, complete information on how to avoid exposure to HIV. Some years ago, people denied the existence of HIV in Nigeria but today, the reality has dawned on all of us as there is substantial evidence

that the people are already having the disease in our society. This training programme is designed to help you acquire skills that will promote HIV risk protective behaviour. Therefore, your cooperation will be of utmost importance to this programme. In this regard, I want to encourage you to actively participate throughout the sessions of this programme. Each session will be carried out within one hour.

The researcher will allow participants to ask questions after which the dates and time of subsequent meetings will be spelt out. Also, the importance of punctuality will be stressed to ensure the success of the programme.

Closing Remark: The researcher will appreciate the participants for their availability and read out the time table for the programme.

Assignment

What are the factors responsible for the spread of HIV ?

Sessions II & III Introduction to the Basic Terms and Concepts of self-efficacy Training.

- The researcher welcomes the participants and thanks them for their participation.
- The researcher explains the meaning of self -efficacy beliefs.
- Self-efficacy means your belief in your capacity to generate the capabilities needed to accomplish a specific task. It has to be noted however that it does not mean the skills you have to perform such task but it has to do with the judgment of what you can do with the skills you have. For instance, those who are confident about their ability are likely to succeed while those who are not confident about their ability are likely to fail in accomplishing a given task. Thus, such confidence will encourage them to work very hard even when they face difficulties while those who are not confident tend to give up when they face difficulties. The higher your sense of efficacy, the greater your effort, persistence and resilience.
- The researcher discusses the sources of self-efficacy
- **Performance Accomplishment**: Individuals engage in tasks and activities, interpret the results of their actions, use the interpretations to develop beliefs about their capabilities to engage in subsequent tasks or activities, and act in concert with the beliefs created. Outcomes interpreted as successful raise self – efficacy while those interpreted as failures lower it. For example, if you are the

goal-keeper of a team that has just won a match without conceding any goal against a strong team and you are billed to face a stronger team; the four sources of self-efficacy beliefs would come into play but your performance in the previous match would enhance your self-efficacy concerning the yet to be played match while poor performance in previous matches results in low self-efficacy.

- **Vicarious Experience:** People form their self-efficacy beliefs through the *vicarious experience* of observing others perform tasks. This source of information is weaker than mastery experience in helping create self-efficacy beliefs, but when people are uncertain about their own abilities or when they have limited prior experience, they become more sensitive to it. The effects of modeling are particularly relevant in this context especially when the individual has little prior experience with the task. Even experienced and self-efficacious individuals, however, will raise their self-efficacy even higher if models teach them better ways of doing things.
- Selection of choices and initiation of efforts by weighing, evaluating and integrating information about participants' capabilities to elicit risk-protective behaviours
- The researcher discusses the importance of these beliefs in HIV prevention.

Verbal Persuasion

The encouragement and supports from others like peers, colleagues and relatives can raise self-efficacy, while negative persuasions can lower self-efficacy. A supportive persuasion from mates could enhance self-confidence.For example,your friend can encourage you to desist from engaging in behaviours that put you at risk.

Physiological states

Our physiological states such as anxiety, stress, fatigue and fear in connection with a behaviour as well as strong emotional reactions to a task provide cues about the anticipated success or failure of the outcome. For example, like in the case of the goalkeeper in the example given above, a sudden case of fatigue or stage fright, could cause self-efficacy expectations to plunge.

To use performance accomplishment and verbal persuasion techniques, each participant will be asked to make at least five statements of what they believe they can

do judging from their capabilities in carrying out successfully some tasks in the past which they think can help them succeed in another situation.

The researcher thanks the participants and reminds them of the time and venue for the next meeting.

Take Home Assignment

i. Identify five ways in which an efficacious adolescent can face challenges in an attempt to exhibit risk-protective behaviour.

SESSION FOUR

Topic: The Processes of Self-efficacy

Objectives: To assist participants in identifying the processes of self-efficacy.

Introductory Remarks:

- Researcher welcomes the participants.
- Discusses the assignment given during the previous session with the participants.
- Introduces to the topic for the day.

The Processes of Self-efficacy

1. Cognitive processes: The effects of self-efficacy beliefs on cognitive processes take a variety of forms. Much of human behaviour, being purposive, is regulated by forethought embodying valued goals. Personal goal setting is influenced by self-appraisal of capabilities. The stronger the perceived self-efficacy, the higher the goals people set for themselves and the greater their commitment to them.
2. Motivational Processes: Self-beliefs of efficacy play a key role in the self-regulation of motivation. Most human motivation is cognitively granted; people motivate themselves and guide their actions anticipatorily by the exercise of forethought. They form beliefs about what they can do; they anticipate likely outcomes of prospective actions; they set goals for themselves and plan courses of action designed to realize valued futures. There are three different forms of cognitive motivators around which different theorist have been built. They include causal attributions, outcome expectancies and cognized goals. The corresponding theories are attribution theory, expectancy-value theory and goal theory, respectively. Self-efficacy beliefs operate in each of these types of cognitive motivation.

3. Affective Processes: People's beliefs in their coping capabilities affect how much stress and depression they experience in threatening or difficult situations, as well as their level of motivation. Perceived self-efficacy to exercise control over stressors plays a central role in anxiety arousal. People who believe they can exercise control over threats do not conjure up disturbing thought patterns. But those who believe they cannot manage threats experience high anxiety arousal. They dwell on their coping deficiencies. They view many aspects of their environment as fraught with danger. They magnify the severity of possible threats and worry about things that rarely happen. Through such inefficacious thinking, they distress themselves and impair their level of functioning. Perceived coping self-efficacy regulates avoidance behaviour as well as anxiety arousal.

4. Selection Processes: The discussion so far has centered on efficacy-activated processes that enable people to create beneficial environments and to exercise some control over those they encounter day in and day out. People are partly the product of their environment, therefore, beliefs of personal efficacy can shape the course of lives taken by influencing the types of activities and environments people choose. People avoid activities and situations they believe exceed their coping capabilities. But they readily undertake challenging activities and select situations they judge themselves capable of handling. By the choices they make, people cultivate different competencies, interests and social networks that determine life courses.

Assignment

Discuss in details, any of the processes of self-efficacy and how it applies to you as an individual.

SESSION FIVE

Topic: How self-beliefs affect human attainment.

Objectives: To help participants understand the principles and influence of self-belief on human agency.

Influence of Self-belief

Self-efficacy beliefs differ from outcome expectations; "judgments of the likely consequences that behaviour will produce". Outcome expectations are related to

efficacy beliefs precisely because these beliefs, in part, determine the expectations. Individuals who expect success in a particular enterprise anticipate successful outcomes. Students confident in academic skills expect high marks on related exams and papers; academic researchers confident in their writing expect their articles will be well-received by publishers and by the community; and individuals confident in exhibiting sexual risk-protective behaviour expect they will be free from HIV scourge. Thus, individuals expect their quality of life to reap personal benefits. The opposite is also true of those who lack such confidence.

Efficacy beliefs, for example, can be beneficial in some situations but counter productive in others, depending on their relationship with outcome beliefs and knowledge and skills. It is likely we see individuals with strong confidence in their abilities but with depressing skills or highly competent professionals with an unfortunate case of low self-confidence. Some low-efficacy individuals give up on or never begin a task; others with similar efficacy beliefs persist even in the face of certain failure. One highly-efficacious adolescent in the most discouraging social environment will persist, survive, and succeed in exhibiting desirable behaviours while his even-higher-efficacious colleague across the street will fail to exhibit such behaviours.

How self-beliefs affect human attainment: Self-beliefs affect behaviour in four ways.

- Self-belief influence choice of behaviour.
- Self-beliefs help to determine how much effort people will expend on an activity and how long they will persevere.
- Self-beliefs affect human agency by influencing an individual's thought patterns and emotional reactions.
- Self-beliefs affect behaviour by recognizing humans as producers rather than simply foretellers of behaviour.

They influence choice of behaviour - people are likely to engage in tasks in which they feel competent and confident and avoid those in which they do not. A reliable assessment of the relationship among self-efficacy, outcome expectations, knowledge and skills are important. Individuals with high efficacy beliefs but poor skills, for example, may behave in concert with their sense of efficacy, but the consequences may cause serious irreparable damage. Individuals with low sense of efficacy but high skill

may suffer from a debilitating lack of confidence and fail to undertake tasks they are perfectly capable of completing.

Conclusion

Participants are reminded that self-beliefs help to determine how much effort people will expand on an activity and how long they will persevere. The higher the sense of efficacy,the greater the effort expenditure and persistence. This function of self-beliefs helps create a type of self-fulfilling prophecy, for the perseverance associated with high efficacy is likely to lead to increased performance which in turn raises sense of efficacy, whereas the giving-in associated with low efficacy limits the potential for improving self perceptions (Collins 1982).

Discussion Question

Researcher asks the participants their various opinions of definition of self-belief.

Take home assignment

1. State what you believe you can do on your own to exhibit risk-protective behaviours.

SESSION SIX

Topic: Self-efficacy beliefs with Adolescence

Objective: To help the participants understand how self-efficacy beliefs can enhance risk- protective behaviour during Adolescence.

Each period of development brings with it new challenges for coping efficacy. As adolescents approach the demands of adulthood, they must learn to assume full responsibility for themselves in almost every dimension of life. The decision you take on sexually risky behaviour is very important because the consequences of such decision is solely yours. In doing this, there is need to master many new skills and the ways of exhibiting risk-protective behaviour. Thus, learning how to deal with pubertal changes, emotionally invested partnerships and sexuality becomes a matter of considerable importance. The task of choosing a wholesome reason for partnership with the opposite sex is equally very important during this period. These are but a few of the areas in which new competencies and self-beliefs of efficacy have to be developed.

With growing independence during adolescence, some experimentation with risky behaviour is not all that uncommon. Adolescents expand and strengthen their sense of efficacy by learning how to deal successfully with potentially troublesome matters in which they are involved as well as with advantageous life events. Insulation from problematic situations leaves one ill-prepared to cope with potential difficulties. Whether adolescents forsake risky activities or become chronically enmeshed in them is determined by the interplay of personal competencies, self- management efficacy and the prevailing influences in their lives.

Impoverished hazardous environments present especially harsh realities with minimal resources and social supports for culturally-valued pursuits, but extensive modeling, incentives and social supports for transgressive styles of behaviour. Such environments severely tax the coping efficacy of youth enmeshed in them to make it through adolescence in ways that do not irreversibly foreclose many beneficial life paths.

While no period of life is ever free of problems, adolescence has often been characterized as a period of psychosocial turmoil. Contrary to the stereotype of "storm and stress," most adolescents negotiate the important transitions of this period without undue disturbance or discord. However, youngsters who enter adolescence beset by a disabling sense of inefficacy transport their vulnerability to distress and debility to the new environmental demands. The ease with which the transition from childhood to the demands of adulthood is made similarly depends on the strength of personal efficacy built up through prior mastery experiences. (Bandura, 1994)

Discussion Question

1. What assistance can you give to a fellow adolescent who exhibits risky behaviour?

SESSION SEVEN

Topic: Understanding the Use of Self-efficacy

Objective: To help the participants understand the use of self-efficacy in relation to their ability.

Introductory Remarks:

- Researcher welcomes the participants and thanks them for prompt attendance.
- Discussion of assignment given during previous session.
- Introduction of the day's topic.

Understanding Self-efficacy

There is an old saying that "success breeds success". The more you succeed at something, the more confident you will feel that you can succeed at it again in the future. The more confident you feel, the more motivated you will be and the more likely you will be to succeed. So you need to find ways to increase your motivation and give yourself the chance to feel wonderful about succeeding again and again.

In low confidence situation, you often have to focus more energy on motivating yourself. It is okay to feel less confident; everyone has low self-efficacy in certain situations. The important factor is an ability to identify these situations and then to work at increasing your motivation so you will work harder to succeed. For example, if you are confident that no matter the level of temptation to engage in risky sexual behaviour, you will not engage in it, then in such situation, you have demonstrated high self-efficacy and you will be motivated to succeed in similar situations in the future.

Discussion Question

State an experience where you were able to resist pre-marital sex before and how this can help you if you are faced with a similar situation in the future.

The researcher ends the session by appreciating the participants for their patience right from the first session and reminds them of the importance of their attendance in the next session.

SESSION EIGHT

- Brief summary of discussions done in previous sessions so far.
- Appreciation to participants for their attendance throughout the programme
- Post-test administration.
- Refreshment.
- Taking of photograph with all participants and instructors of the remand centre.

Control Group A3

Session 1

- The researcher welcomes the participants
- The researcher appreciates the participants for their presence
- Administration of instruments to collect pre-test scores.

Session II

- The researcher gave a non-therapeutic talk on "youth development in the face of global economic crisis".

Session III

- The researcher welcomes the participants
- Administration of instrument to collect post test scores
- Distribution of light refreshment to the participants.