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**Knowledge, Attitudes and Practices of Mildly  
Mentally Retarded Adolescents in relation to  
HIV/AIDS**

**By**

**Naseema H Dawood**

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**Supervisors : Dr E.A. Chohan  
Mr A.M. Bhagwanjee**

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## ABSTRACT

The purpose of this study was to investigate the knowledge, attitudes and sexual practices of mildly mentally retarded (MMR) adolescents with regard to HIV/AIDS. The 3 main objectives, were: 1) examining what MMR adolescents know about HIV/AIDS and the sources of their knowledge. 2) examining the attitudes and behaviours of MMR adolescents in relation to HIV/AIDS. 3) examining the influence of peer norms and self efficacy factors on their attitude and behaviours in relation to HIV/AIDS

Questionnaires were personally administered to a saturation sample of 90 MMR Black adolescents drawn from one specialised educational institution in Durban, KwaZulu-Natal. Statistical analysis of the data revealed the following.

1) Critical gaps and erroneous beliefs regarding knowledge of HIV/AIDS, especially with regard to existence, transmission and cure. Respondents indicated a high degree of exposure to various sources of information, particularly media. 2) The majority of respondents in general did not hold prejudicial attitudes towards stigmatised groups and to infected persons. While only a small number of MMR adolescents were sexually active, the use of contraceptives was found to be extremely low. 3) Gender role prescriptions and societal constructs of immorality had a negative influence on the attitudes and behaviours of the subjects' sexual practices and preventative behaviour. Further, MMR adolescents were found to have low levels of self-efficacy in relation to issues concerning sexual negotiation and decision making, more specifically with regard to condom usage.

Findings are discussed against the backdrop of the empirical literature on HIV/AIDS, developmental theory, as well as pertinent theories and models of health behaviour. Drawing on the primary conclusions of the study, a systemic body of recommendations is offered with regard to programmatic intervention within the school as a health promotion setting.

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## **LIST OF ABBREVIATIONS**

MMR - Mildly Mentally Retarded

NDS - For the purpose of confidentiality the school in which the research was conducted will be referred to as NDS.

KAP - Knowledge, Attitude and Practices

HIV - Human Immuno-deficiency Virus

AIDS - Acquired Immune Deficiency Syndrome

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 MOTIVATION AND RATIONALE FOR THE STUDY**

Acquired Immune Deficiency Syndrome (AIDS), a viral infection caused by the Human Immunodeficiency Virus (HIV), has become the scourge of the Southern African population. South Africa has the fastest growing HIV epidemic in the world, with more people infected than in any other country in the world (UNAIDS, July 2000). Over 4 million South Africans were infected in 2000 as compared with 3, 6 million at the end of 1998 (UNAIDS, July 2000). According to statistics from the Department of Health (2000), provincial estimates differ widely, with KwaZulu-Natal having the highest HIV prevalence of all the provinces (33%), followed by the Free State (28%), Mpumalanga (27%) and Gauteng (24%). ING Barings Bank (cited in Development Update, March 2001) projected that AIDS-related deaths in South Africa would peak at approximately 6 million in 2011. By this time an estimated 5, 6 million South African's would have died from the disease, another 6, 25 million will be living with HIV and 25 million South African children will have been orphaned because of AIDS (Sunday Independent, April 2000). It was further projected that most of the people infected would be African and poor. The AIDS epidemic therefore has serious implications for growth, development and social welfare in South Africa.

Adolescents are of particular interest in STD and HIV studies as their behaviour places them at high risk for STD/HIV infection (Hein, 1992). Research (Meyer-Weitz & Steyn, 1992; Abdool Karim, Preston Whyte & Sankar, 1992) has shown that South African children and adolescents would comprise the next wave of infection. While the highest incidence of HIV infection occurred in people between the ages of 20 and 35, the rate of HIV infection among teenagers has been increasing at a faster rate than in any other age group (Sunday Independent, 23 April 2000). UNAIDS (2000) found that in several African countries, girls aged between 15 and 19 are between 5 and 6 times more likely to be HIV - positive than their male counterparts. It is becoming increasingly clear that in South Africa, young women between the ages of 15 and 25 years are at particularly high risk of HIV infection (Wood & Jewkes, 1998).

The long latency period between HIV infection and clinical symptoms often obscures the reality that many people now suffering from AIDS became infected during their teen years. Estimates by the World Health Organisation (1998) suggest that half of the people infected with HIV acquired the disease between the ages of 15 and 24 years. In South Africa, more than 40% of the population are under 15 years of age and at the current rate of infection more than 50% of South Africans under 15 today could die of AIDS related causes in the next 5 to 10 years (National Youth Survey, 2000). In communities where infection rates are high, preventative interventions may be most effective if directed at adolescents below the age of 16 years (Hein, 1992).

Since there is no medical cure for AIDS, a vital strategy to combat the spread of the disease is through the use of behavioural and educational programmes that aim to alter behaviour to limit the infection. Through the redefinition of HIV/AIDS as an educational and behavioural problem that can be controlled by changing high-risk behaviour, people can be empowered to control the disease (Van Dyk, 1991). Although skeptics are critical about the success of behavioural programmes, education of the youth is accepted throughout the world as the most important strategy to combat AIDS and schools are seen as excellent settings to reach million of students cost effectively (WHO,1998).

The challenge to changing risk behaviour touches on the satisfaction of personal human needs which are influenced by myths, taboos, misconceptions, stereotypes and stigmatization (Mays, Albee & Schneider, 1989). AIDS prevention is complicated even more by the fact that the AIDS epidemic in South Africa, as in other 3rd world countries, is more than a behavioural problem, given that it is embedded in the socio-political context. Issues of poverty, access to food, medical care, power imbalanced relationships between men and women, the survival and coping strategies of different communities and cultural values all impinge upon the ways in which the AIDS epidemic affects society (Lindegger & Wood, 1995). It is not surprising therefore, that HIV/AIDS in South Africa flourishes most in areas that are burdened by unemployment, welfare dependency, prostitution, crime, lack of basic services, a high school drop out rate and social unrest (Visser, 1995). To add to the problem, the response of people to HIV/AIDS appears to be mediated by personal and social factors such as locus of control, self-efficacy, peer

influence, moral judgements and opportunities to make choices about lifestyle (Lindegger & Wood, 1995).

Internationally, medical, psychological and social research has been conducted into numerous aspects of this multifaceted disease with a tremendous amount of information gathered and gained over a relatively short period of time. However, AIDS and HIV infection among persons with mental retardation remains virtually uninvestigated (Scotti, 1997), and although there has been a plethora of publications regarding adolescents and HIV/AIDS, there is a paucity of research concerning mentally retarded adolescents and HIV/AIDS. Several surveys (Timmers, Du Charme & Jacobs, 1991) have documented that many persons with mental retardation are sexually active. Additionally they can experience sexual abuse and engage in substance abuse, both of which are factors associated with increased sexual activity and HIV risk (Sobsey & Gray, 1991). Cognitive deficits and the concomitant failure of service providers to provide appropriate sex education programmes (Kempton & Kahn, 1991) magnify the effects of risk factors suffered by their normal peers. Although the mentally retarded subgroup has not previously been identified as being at risk, it should be clear that cases of HIV/AIDS have been documented in this population and with time the effects could be devastating (Scotti, 1997). Therefore, with no cure or vaccine available, HIV/AIDS prevention education should extend beyond the general population to mentally retarded persons, a subgroup that has been sadly neglected.



The present study addresses this concern, and focuses specifically on mildly mentally retarded adolescents. In order to tailor suitable educational programmes about HIV/AIDS for this particular community, specific factors associated with the behaviour and conditions that are most relevant to the community need to be identified. The present study involves specifically delineating the knowledge, attitudes and practices that mildly mentally retarded individuals need to develop in order to practice healthy behaviours and reduce conditions that increase the risk of HIV infection. The study also examines the extent to which peer norms and self-efficacy factors inform their attitudes and behaviours, support systems and their opinions about suitable AIDS interventions.

## **1.2 AIM AND OBJECTIVES OF THE STUDY**

The aim of this study is therefore to determine the knowledge, attitudes and sexual practices of mildly mentally retarded adolescents in relation to HIV/AIDS. The study proposes to achieve this by:

- ❖ Examining what mildly mentally retarded adolescents know about HIV/AIDS and the sources of their knowledge.
- ❖ Examining the attitude and behaviours of mildly mentally retarded adolescents in relation to HIV/AIDS.
- ❖ Examining the influence of peer norms and self-efficacy factors on their attitude and behaviours in relation to HIV/AIDS.

The important contribution of this science based, theory driven study is that it is tailored to the needs of this particular group. The findings will be useful not only in promoting a better understanding of the psycho-educational dynamics of HIV infection in this special group of adolescents, but also to tailor suitable educational programmes and promote further research in an effort to add to our knowledge in addressing the problem of HIV/AIDS among this group of persons.

### **1.3 DEFINITION OF TERMS**

In order to understand the variables in this research it is necessary that important variables be defined.

*Adolescence* can be defined as a transition period between childhood and adulthood covering the years between ages 13 and 18 (Davidoff, 1987).

*Attitude* refer to the sum total of a person's inclinations, prejudices, ideas, fears and convictions on a specific topic (Thurstone, 1938).

*Behavioural practice* is a consequence of a complex process that can be examined from two perspectives. It can be considered to be the result of individual determinants, such as attitudes, social influences and perceived abilities. Secondly, behavioural practices may be considered to be the result of factors beyond the individual, such as social, political, economic, cultural and legislative factors (De Vries, 1997).

*Intelligence* can be defined as the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with the environment (Wechsler, 1965).

*Intelligence quotient (IQ)* refers to the relationship between the mental age (MA) and the chronological age (CA) of an individual given as a percentage (Smit, 1996).

*Knowledge* refers to the awareness, consciousness and familiarity gained by the experience of learning (Collins, 1985).

*Mild mental retardation*: In the past this group of intellectually retarded persons was referred to as being educable. Utilising standard intelligence tests, IQ's in the range of 50-55 to approximately 70 are considered to fall in the mildly mentally retarded range (DSM IV, 1994).

*Peer norms* refers to an appraisal of the likelihood that salient others would wish the individual to engage (or not) in a specific behaviour and their motivation to comply with these expectations (Benett & Murphy, 1996).

*Self-efficacy* is the degree to which an individual believes that he/she is capable of executing recommended preventative health behaviours (Prewitt, 1988).

## **1.4 CONCLUSION**

This chapter presented the rationale for undertaking this study and has identified the areas to be investigated, the aim and objectives of this study and how these will be achieved. Important variables were defined.

Literature relevant to this study will be reviewed in subsequent chapters.

Chapter 2 will provide an overview of mental retardation. Concepts and characteristics relevant to MMR adolescents will be discussed. This chapter will also examine personality development and risk-taking behaviours in MMR adolescents.

Chapter 3 will concentrate on HIV/AIDS and sexuality education in South Africa. The socio-economic context of HIV/AIDS, national preventative initiatives as well as the need and lack of sexuality education for MMR adolescents will be discussed.

Chapter 4 covers the theoretical framework in which the study is contextualised. The framework will not only be viewed as a focal point in understanding the dynamics of health-related behaviours but also as a reference point for developing appropriate HIV/AIDS intervention programmes for this group of learners.

This will be followed by the research methodology (Chapter 5) adopted in the study. The results (Chapter 6) obtained from the data analysis will then be presented, followed by a

discussion of the findings (Chapter 7), supported by relevant research findings. Finally, conclusions and recommendations (Chapter 8) for future research will be presented.

## **CHAPTER 2**

### **MENTAL RETARDATION: CONCEPTS AND CHARACTERISTICS**

#### **2.1 INTRODUCTION**

This chapter examines the concept of mental retardation and related terminologies. Further, it describes the characteristics of mental retardation dealing primarily with mild mental retardation in adolescents, which is the focus of the present study. Finally, the chapter deals briefly with research findings that explain the relationship between personality development and risk-taking behaviours in mentally retarded adolescents.

#### **2.2 DEFINITION AND PREVALENCE**

Definitions of "mental retardation" given by psychologists are scientific descriptions of social reality. These scientific descriptions are only interpretations of reality and there are many alternative interpretations (Morss, 1996). Terms such as "idiot", "moron" and "imbecile" were commonly used in the 1940's and 1950's to refer to someone who was so-called "feeble minded" (Léa & Foster, 1990). Implicit in these terms is the assumption that mentally retarded persons are social outcasts to whom basic human rights do not apply. Such terms were later replaced with others such as "backward", "mentally defective" and "mentally subnormal" in an attempt to find less condemnatory labels. By the late 1970's the American Association on Mental Deficiency, presently known as the

American Association on Mental Retardation (AAMR) elected to use the term "mental retardation" to refer to those formerly known as "defective". At present, the concern with sensitive or sophisticated labeling is high. Numerous attempts have been made to create appropriate terms for persons who to various degrees deviate from norms constructed to describe what is healthy, normal development. Terms such as "mentally handicapped", "differently abled" and "developmentally disabled" are evidence of attempts to reduce the stigma attached to those being labeled (Lea & Foster, 1990). Currently terms such as "mental retardation", "mental handicap" and "intellectual impairment" are widely used (Steenkamp, 1994). For the purpose of this research the term "mental retardation" will be used because it is almost universally accepted and frequently cited in the literature.

Currently, there are two widely accepted definitions of mental retardation. Both these definitions have changed several times over the years to incorporate contemporary thinking and theory on mental retardation. One of the most widely accepted definitions of mental retardation was proposed by the AAMR. The definition underwent several revisions and refinements over the years, ultimately yielding the following definition:

*"Mental retardation refers to substantial limitations in present functioning. It is characterised by significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following adaptive areas: communication, self care, home living, social skills, community use, self direction, health and safety, functional academics, leisure and work. Mental retardation manifests before age 18". (AAMR, 1992: 1)*

This definition has been incorporated into the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994). In this definition, *significantly subaverage intellectual functioning* refers to IQ scores that are at least two standard deviations below the mean. Therefore, mental retardation may be diagnosed in persons with IQ's of approximately 75 or below if they demonstrate significant deficits in at least two areas of adaptive functioning. The AAMR definition is particularly designed to de-emphasize people's limitations in relation to lower IQ and to emphasise their strengths.

In contrast to the AAMR definition, the International Statistical Classification of Diseases and Related Health Problems (ICD-10), produced by the World Health Organisation and which is also widely used and a major diagnostic system of classification of disorders, defines mental retardation as a condition of arrested or incomplete development of the mind which is especially characterised by impairment of skills manifested during the developmental period, contributing to the overall level of intelligence i.e. cognitive, language, motor and social abilities.

There is considerable overlap between the 2 definitions. The similarities include:

- a) Both definitions emphasise subaverage intellectual functioning occurring during the developmental period.
- b) Both definitions include concurrent impairments in adaptive functioning.
- c) Both definitions use multidimensional systems incorporating intellectual, adaptive, physical and environmental conditions.



Intelligence is no longer viewed as a unitary concept. Rather, it is defined on the basis of a large number of different but more or less specific skills. These skills generally develop to a similar degree for each person. However, the mentally retarded population is heterogeneous, and a given person may exhibit significant performance discrepancies with respect to these skills. Impairments in communication, general knowledge, memory, attention and impulse control generally will be present. Limitations in logical thinking, strategic planning and foresight are amongst the most important deficits. An additional disability often experienced by mentally retarded persons is cognitive rigidity, an impairment in the ability to learn from mistakes and to generate a range of solutions to various problems. Impairments in adaptive functioning rather than a lower IQ is the most common presentation in mentally retarded persons. Grossman (1983:1) defined adaptive behaviour as *"the effectiveness or degree with which individuals meet the standards of personal independence and social responsibility expected for age and cultural group"*. Adaptive functioning may be influenced by education, personality characteristics, social and vocational opportunities, co-occurring mental disorders and general medical conditions. Adaptive functioning is more apt to improve with education than is the IQ, which remains relatively stable over time.

Historically there was an emphasis on intellectual factors in defining and understanding mental retardation. However, from the discussion above the view that is embraced currently is that personal social skills development is critical if mentally retarded children are to function with maximum effectiveness as adults. This has important implications for

the "normalisation principle", which states that although mental retardation is a chronic condition, a substantial degree of habilitation can be accomplished. By participating in normative community activities and through role modeling and social skills training, adaptive social growth and increased functional independence are effectively accomplished and mentally retarded persons learn to become increasingly responsible for their own behaviour.

There has been widespread debate regarding the prevalence of mental retardation, with some reporting a 1% prevalence as compared to other studies that report a 3% prevalence. Over the last decade, the number of children identified as mentally retarded in American public schools has dropped by about 20% (Will, 1988). A possible reason for the above is that we are classifying these youngsters differently. The differentiation between children with mild mental retardation and learning disabilities is blurred, more so in school placement decisions. Baumeister (1987) claimed that the condition of learning disability is rapidly displacing mild mental retardation as a diagnostic label. Another reason for the discrepancy in prevalence is that a much smaller percentage of mentally retarded persons are in the organic as compared to the non organic group, the most common estimate being 25% versus 75% respectively (Zigler & Hodapp, 1986).

While the organic group is characterised by a known organic etiology, in the non organic group no specific organic cause is present, but rather the mentally retarded individual is typically an offspring of low IQ parents and often raised in poor environments, hence

both genetic and environmental determinants are implicated. Organically retarded individuals are commonly placed at the lower end of the IQ distribution (IQ's below 50), while familial persons are invariably mildly mentally retarded (IQ's 50-70). The distinction that can be made between organic and socio-cultural forms of mental retardation is important when examining the prevalence of mental retardation in South Africa.

Recent research has suggested that when both cognitive and adaptive functioning are considered, the population prevalence of mental retardation is just under 1% (Kaplan & Sadock, 1998). In one of the very few studies on the prevalence of mental retardation in South Africa, Power (1977) claimed that the prevalence was fairly similar to that found in the developed world. As opposed to this, Richter and Griesel (1994) stated that the prevalence of mental handicap in South Africa would be higher, given the well established relationship between poverty, malnutrition and other forms of environmental disadvantage and intellectual deficits. According to population figures from the 1996 South African population census (as supplied by the Central Statistics Bureau), there are 192 553 persons that have been diagnosed as mentally retarded in South Africa and there are 42 646 mentally retarded persons in the province of KwaZulu Natal. The above mentioned prevalence figures indicate that the South African population comprises a substantial number of persons with mental retardation, and therefore the needs and well-being of this population cannot be overlooked. Prevalence figures regarding the composition of different categories of mental retardation and the number of mentally retarded adolescents could not be attained. In addition, no reliable comparative data are

available on the prevalence of mental retardation for the different population groups in South Africa. However, the literature on psycho-social disadvantage and mental retardation suggests that because black South Africans have borne the brunt of the negative effects of apartheid rule (such as high levels of poverty, disease and infection and a lack of appropriate social services), the prevalence of mental retardation would be substantially higher for this group than for the more advantaged white communities (De la Rey, Duncan, Shefer & van Niekerk, 1997).

Mental retardation is divided into 4 degrees of severity viz. mild, moderate, severe and profound, reflecting the degree of intellectual impairment. With respect to the population of mentally retarded persons *per se*, Grossman (1983) concluded that an estimated 85% of the group functions at the mild level of retardation, 10% at the moderate level and between 4 and 5% at the severe and profound levels. In this study, the category that will be examined will be mild mental retardation, primarily because of ease of access to the sample and given their ability to hold conversations and participate in an interview.

### **2.3 DEVELOPMENTAL PROFILE**

Studies of adolescents with mental retardation are relatively scarce, most being confined to children and adults (Bouras, 1994). For the most part, behavioural, emotional and social problems and the concomitant needs for treatment and support of MMR persons parallel those found in persons with normal intelligence. It can therefore be concluded

that the developmental profiles of mildly mentally retarded persons do not differ markedly from others in their age group (Kaplan & Sadock, 1998). Thus, the age level characteristics of the general population will be discussed, though specific differences with regard to certain characteristics of mildly mentally retarded persons as compared to their non-retarded peers will also be highlighted.

Adolescents are neither children nor adults, they are somewhere in between, special and unique. During adolescence humans experience a change in their physical, behavioural and psychological characteristics. Most centrally, adolescents must sort out the conflicting demands and expectations of family, community and friends; develop insights into their changing bodies and needs; establish independence and fashion and modify their adult life. Adolescence is truly a period of transition that encompasses the personal, social and educational life of the individual whose emerging cognitive abilities help her/him to cope with the accompanying responsibilities. As they begin to handle ideas more logically and adequately, they are likely to examine what happens critically and thoughtfully, considering alternative solutions to problems and spotting contradictions. Because adolescence presents such difficult challenges, it is often viewed as a time of turmoil and disturbance (Offer, 1981). Mentally retarded youth enter adolescence with fewer resources and limited adaptive abilities and their goals in the struggle for identity and autonomy are not as ambitious as their normal counterparts. These factors therefore further intensify the tumultuous period of adolescence amongst mildly mentally retarded adolescents. Many retarded adolescents have the physical attributes of their non retarded

peers but not the capacity to cope fully with the demands of their environment or with their own desires for emancipation from childhood.

### **2.3.1 Physical Factors**

According to Biehler and Snowman (1990) adolescent's experience the following physical changes. While most girls have completed their growth spurt at this age, the growth spurt for boys is not completed before the 8th and 9th grade. During this period, puberty is reached by practically all girls and by many boys. The sex organs mature rapidly and secondary sex characteristics appear such as breast development, rounded hips and the appearance of a waistline in girls, a broadening of the shoulders and the replacement of fat with muscle tissue in boys. In both sexes, pubic, axillary, facial and body hair appear and the voice changes. All these developments have a profound impact on the appearance, biological functioning and psychological adjustment of the adolescent. Mentally retarded persons pubertal growth does not differ from that of their non retarded peers. As with non retarded adolescents, puberty brings about gross physical and physiological changes. Unless retarded adolescents are prepared for the gross physiological changes brought about by puberty, these changes may be a more traumatic experience for retarded persons as compared to non-retarded individuals (Bouras, 1994).

### **2.3.2 Socio Emotional Factors**

In a review of social factors impacting on adolescent development, Biehler and Snowman (1990) noted the following. The peer group becomes the general source of rules of behaviour for adolescents. Adolescents perceive developing a code of behaviour as a

move towards adult independence. The desire to conform reaches a peak during the junior high year, where adolescents find it reassuring to dress and behave like others and they are likely to alter their own opinions to coincide with those of a group. Adolescents show great concern about what others think of them. Friendships and quarrels become more intense and social interactions generally increase.

A number of studies have attempted to compare the beliefs, attitudes and values of parents and their children and also to compare the extent to which parent-child and peer-peer opinions agree and conflict. The hypotheses that parents and peers influence different aspects of adolescent behaviour suggests that parents have a greater impact on decisions that have implications for the future (e.g. choice of a career), while peers influence decisions that involve current status and identity needs (e.g. choice of friends) (Biehler & Snowman, 1990). It is also interesting to note that adolescents tend to rank their mothers before their fathers as an important source of understanding (Richardson, Galambos, Schulenberg & Peterson, 1984).

Research on the social development of persons with mental retardation has been relatively sparse. Adolescents with mild mental retardation are aware of their exclusion from the activities of their chronological peers and siblings, and of their inability to make sophisticated social judgements (Bouras, 1994). Mildly mentally retarded adolescents may be slow in interpreting social messages (e.g. acceptance/non acceptance by peers), may have difficulty in getting along with peers and they most often take a peripheral role in a social group (Bouras, 1994). Most mildly retarded adolescents are eager to learn,

because they wish to be as much like their normal peers as possible (Kaplan & Sadock). Another frequently mentioned social characteristic is the retarded individuals' imitateness and great reliance on external cues to guide their behaviour. In some studies, it was observed that retarded adolescents were more sensitive to cues provided by an adult than non-retarded children of the same mental age (Bouras, 1994). It is interesting to note that adolescent gangs nearly always have some mildly retarded adolescent among their members, who are unaware of their limited judgement and are therefore exploited by others (Bouras, 1994).

Many theorists have stressed that adolescence is a period of turmoil. In a review of studies on adolescent turmoil, Siegel (1982) suggested that the adolescent process was an interruption of peaceful growth and was normally attended by anxiety, worries, and concerns regarding self-esteem, physical appearance and body image. Studies indicated that boys were about twice as likely as girls to have adjustment problems during the years from nine to fifteen. However, in the latter years, girls may display more emotional disorders of certain types, particularly depression (Biehler & Snowman, 1990). Explanations for these findings are that females have a greater tendency than males to express emotional disturbance by depression and that during the adolescent years, females begin to conclude that they have little control over significant aspects of their lives. This is often referred to as "learned helplessness" because it is assumed that a helpless feeling has been learned through experiences and through the reaction of others (Seligman, 1975). The most common type of emotional disorder during adolescence is



depression, the symptoms of which include fatigue, low affect and difficulty in concentrating (Weiner, 1990). Adolescents who experience such symptoms may engage in problem behaviour or delinquent acts carried out in ways that make it clear that they are appealing for help.

Weisz (1978) found that retarded children were more helpless than their non-retarded peers, however this distinction only becomes clear, as they grow older. This finding is in harmony with the view that retarded children learn helplessness over years of development and that successive failures and helplessness in turn play a significant role in their retardation. In view of the central role of the self-concept as an emotional determinant, it is somewhat surprising that there has not been much work on this issue in the mental retardation literature. It seems plausible to expect that retarded individuals as a group would have more adverse self concepts than non retarded individuals of equivalent developmental level, both because of perceived intellectual inadequacy and because of the presumed stigmatisation that they experience. Surprisingly, this expectation has been met with mixed findings in the literature. Ellis (1982) reported that in two studies, no overall differences in self-concept were found between groups of mildly mentally retarded adolescents in a segregated special education school and non-retarded individuals in a public high school. It was reported however, that in some specific aspects of the self-concept, retarded adolescent had a more negative view of themselves. Feldhusen and Klausener (1962) found that mentally retarded adolescents showed greater anxiety than groups of both average and high IQ children. As with the self-concept, high

anxiety could be a function of either or both a persons feelings of being stigmatised because of the retarded label or because of perceptions of intellectual competence.

### **2.3.3 Cognitive Factors**

The 14-16 year old period is generally marked by an adolescent's ability to engage in formal thought, characterised by abstract thinking, hence it is a transition period between Piaget's (1954) stages of concrete operational and formal operational thought. The young adolescent who thinks in concrete terms concentrates on individuals and finds it difficult to take into account society as a whole (Biehler & Snowman, 1990). Inhelder (1965) interpreted Piaget's cognitive theories and their implications for the mentally retarded. She suggested that retarded persons do not attain the stage of formal operations and that mildly mentally retarded persons do not reach the stage of concrete operations until mid adolescence. The mentally retarded person will develop over time and traverse the same developmental stages as the non-retarded person, however the ultimate level of functioning attained will be lower.

According to Drew and Logan (1984), the most obvious characteristic that distinguishes children who are mildly retarded from those of their non retarded peers is their limited cognitive ability, a limitation that inevitably shows up in their academic work. Many mildly retarded adolescents have problems with the organisation of information, lack good judgement, display poor impulse control, have limitations in foresight and have difficulty generalising from one situation to another (Kaplan & Sadock, 1998). Mildly retarded people have a general language deficit and specific problems using interpretive

language. An additional disability often experienced by mildly mentally retarded persons is difficulties with memory, especially short-term memory. Some researchers suggest that the long term memory of retarded persons is about the same as that of their normal peers, that is mentally retarded persons are no more likely to forget what they have learned than the non retarded. However, this is only true when what is learned is consistent with their mental abilities (Polloway, 1984).

#### **2.3.4 Sex Behaviour**

In a discussion of the development of sexuality in adolescents, Miller and Simon (1980) point out that puberty, a biological event, causes adolescents to function as "self-motivated sexual actors" which is a social event. They commented that in present day societies "young people are defined as sexually mature while simultaneously being defined as socially and psychologically immature". This conclusion is as a result of conflicts between sexual, social and psychological concepts of maturity, which is further, intensified by contemporary attitudes towards sex. Compared to previous generations, contemporary adolescents are expected to be more interested in sex, to become experienced earlier and to approach regular socio-sexual activity with greater competence (Miller & Simon, 1980). In addition to difficulties caused by such factors, the young adolescent may be further confused because sex education of the adolescent is empathically attached to moral education. Gender role expectations in society establish attitudes towards sexual morality e.g. the traditional view, that " good girls do not engage in premarital sex" (Biehler & Snowman, 1990). Even though adolescents may endorse

the view that pre marital sex is wrong, adolescents and youth are nevertheless motivated to engage in sexual relationships. A possible explanation for such behaviour is that sexual interaction fulfils a number of important needs for young people: to enhance communication, to prove one's maturity, to be in tune with the peer group and to investigate the mysteries of love (Lerner & Spanier, 1980). Zelnick and Shah (1983) documented that 6 in 10 females had intercourse for the first time at an average age of 16, with a male they were committed to. By contrast, most adolescent males have sex for the first time with a casual acquaintance.

There is little doubt that sexual activity among adolescents is on the increase. Related to the increase in sexual activity among adolescents is the increasing incidence of sexually transmitted diseases. Mentally retarded persons at maturity have a composite of child and adult characteristics, e.g. an 18 year old male may have a mental age of 10 years, but age appropriate physical development (Hall, 1975). Thus, one might argue that a mentally retarded person is a child by virtue of IQ, but an adult by virtue of physical development. Where sexual capacity and sexual functioning is concerned, at maturity a mentally retarded individual is clearly an adult. As the scientific literature demonstrates, mildly mentally retarded individuals are sexually competent, in terms of biological capacity, desires and the psychological significance they attribute to sexual relations (Hall, 1975). Few investigators have examined the sexual behaviour of mentally retarded persons. In a qualitative study of people with mental retardation (Heshusius, 1982) found that sexual development broadly follows the normal pattern and that intimacy and sexual expression are a large part of the respondent's lives, despite the fact that significant others largely

ignore and deny their sexual needs. Thus, while the sex drive of people with mild intellectual deficits is likely to be functioning normally, the combination of reduced intellectual functioning together with reduced peer experience and limited formal instruction, may result in inappropriate sexual expression (Simonds, 1980). A number of researchers (Timmers, Du Charme & Jacobs, 1981) have indicated that the sexual behaviour of mentally retarded persons is learned, shaped and reinforced by environmental factors. When mentally retarded persons function within a mainstream environment, their sexual behaviour is similar to that of their same age peers (Timmers et al, 1981). Simonds (1980) argued that although there is no difference in the sexual desires and interests of adolescents with mild mental retardation and without retardation, the sexuality of the former is of great concern for caregivers and parents. McCabe (1993) showed that adults with mild mental retardation are not significantly different from adults without mental retardation in the exploration and control of their sexual impulses.

The sexual issues which face people with mental retardation are inevitably tied into the public's mood and awareness about sexuality. Kempton and Kahn (1991) suggested that a mentally retarded child's general attitude towards accepting himself/herself, as a sexual being will tend to reflect the attitude of significant adults. For someone with learning disabilities and a lifetime of mixed messages about sexuality and with the prevailing attitudes of asexuality and sexual taboo, to assert a positive and wanted relationship is perhaps the most difficult challenge of all (McCabe, 1993). A study by the Carnegie Council on Children (cited in Heschusius, 1982) documents that the basic framework still

is the pathological model where the handicapped person is seen as not quite normal. This denies them, among other things, the human right to sexual expression.

While caregivers argue over the ownership of responsibility of sex education, many mentally retarded adolescents continue to be sexually active and ignorant (Watson, 1980). Adolescents, including mentally retarded persons, will continue to be sexually active with or without the approval of society. Unless they receive adequate sex education, both unwanted pregnancies and sexually transmitted diseases are inevitable.

#### **2.4 PERSONALITY DEVELOPMENT**

The field of mental retardation has focused largely on intellectual and cognitive functioning and has generally neglected the area of social and personality development. The imbalance results from the salience of cognitive variables that tend to overshadow other aspects of development, even though they are extremely crucial. As a consequence, there exists a dearth of knowledge about adaptive and maladaptive personality profiles among persons with mental retardation, which is unfortunate since studies have shown that personality and motivation are at least as important as IQ in predicting vocational, residential and social adjustment and adaptation (Kaplan & Sadock, 1998).

Investigators (Zigler & Hodapp, 1986) have identified several personality characteristics that are evidenced by many persons with mental retardation. These include

Zingler  
The... ..ality character

overdependence, low self-image, limited levels of aspiration and extrinsic means of problem solving. These characteristics are shaped largely by a variety of adverse circumstances, to which mentally retarded persons are often exposed, including repeated failure and societal disapproval. As a consequence, they become skeptical about their abilities and their potential for success.

Research on motivation in general has been sparse, although considerable attention has been given to the relatively poor intrinsic motivation of people with mild mental retardation (Haywood & Switzky, 1986). Research suggests that people with mild mental retardation respond more to extrinsic than intrinsic motives, however their responsiveness to intrinsic motivation may be increased by suitable educational programmes (Haywood & Switzky, 1986). Life experiences that affect the normal population will also affect people who are retarded. Indeed, several negative life experiences that happen frequently to retarded persons may cause certain deficits that are falsely attributed to mental retardation itself. Weisz (1978), stated that a fear of trying new tasks or greater dependence on adults to solve problems may be more likely in mentally retarded persons not because of their lower intelligence, but because of repeated failures. This, combined with a history of rejection and limited social support, leads to an over reliance on others for guidance and feedback, as well as dependent attention-seeking behaviours in addition to low motivation. In general, persons with mental retardation are so highly motivated by social attention and acknowledgement that they often suppress strivings for mastery and independence and expressions of curiosity and creativity. These factors therefore render

them vulnerable to exploitation, sexual abuse and engaging in high-risk behaviours in order to obtain acknowledgement, approval and acceptance from others.

In the presence of adjustment difficulties and low motivation, there is a tendency for mentally retarded adolescents to experience a tumultuous period of transition into adulthood. During the adolescent years, a combination of parental restrictiveness and overprotection, peer rejection and low self-confidence leads to problems with self-concept, identity, individuation and sexuality. Studies have shown that mentally retarded adolescents view life as being less meaningful and fulfilling than do their peers (Kaplan & Sadock, 1998). They also experience dissatisfaction with their physical appearances and a poor sense of mastery and control over their impulses and behaviours (Kaplan & Sadock, 1998). Adolescents with mild mental retardation experience their identity crises later on in life, as a result of their struggle to establish their identity and move towards autonomy, they become frustrated, thus leading to depression or aggressive acting out behaviours (Bouras, 1994). In addition, mentally retarded adolescents appear to be more isolated, lonely, dysphoric and angry than their counterparts. Longitudinal studies in the general population have shown that low IQ in early childhood is related to emotional problems and delinquency in adolescence (Bouras, 1994). A failure to adequately resolve the difficulties of adolescence, in conjunction with a low IQ and adaptive difficulties leads to a higher than expected rate of maladaptive personality style in adulthood (Zigler & Hodapp, 1986). It is estimated that up to one half of adults with mental retardation exhibit dysfunctional personalities and as many as one fourth suffer from personality disorders (Kaplan & Sadock, 1998).



## **CHAPTER 3**

### **HIV/AIDS AND SEXUALITY EDUCATION IN SOUTH AFRICA**

#### **3.1 INTRODUCTION**

Young people around the world stand vulnerable to HIV/AIDS as never before. Some 60% of new infections of HIV are among those between the ages of 15 and 24, a figure that is steadily rising. Many people over 24, who now have HIV, or have developed AIDS, contracted the virus when they were within this age group (UNAIDS, 2000). AIDS is foremost a disease of the young. AIDS affects the young partly because the world's population is a young one. One fifth of the global population is between the ages of 10 and 19 and in developing countries young people constitute at least 50 % of the population. In South Africa, more than 40 % of the population are under 15 years of age (UNAIDS, 2000). These young South Africans are at great risk of HIV infection.

This chapter explores how adolescents in South Africa are affected by the HIV/AIDS pandemic and the resources available to them in managing the spread of HIV infection. In the first section, the risk factors adolescents are exposed to with regard to HIV infection are discussed. The following section outlines the scope and the controversies surrounding sexuality education. Thereafter, an overview of national prevention efforts as well as suggestions regarding the delivery of more effective HIV prevention initiatives is presented. The final section explores the availability of sexuality education, content of

programmes and the need for sex education arising out of the problem perspective of HIV/AIDS for mildly mentally retarded adolescents. The chapter concludes with a discussion of obstacles to the delivery of AIDS awareness messages for mildly mentally retarded persons.

### **3.2 THE SOCIO-ECONOMIC CONTEXT OF HIV/AIDS**

Adolescents are particularly vulnerable to HIV/AIDS and STDs because they are in a period characterised by the development and formation of sexuality, a period usually marked by changes in social behaviour as discussed in Chapter I. Practices that increase the risk of HIV infection such as unprotected sexual intercourse, and alcohol and drug abuse are often initiated during adolescence (Cairns & Neckerman, 1989). Normative social influence of their peers, perceptions of invulnerability to HIV infection (Weinstein, 1987), and a non-personalisation of the threat of AIDS (Edgar, Freimuth & Hammond, 1988), combine to make this particular group a high-risk group for HIV infection. Experimentation and identification with risk behaviour may be part of a developmental process in which youth regard risk taking as part of their goal to establish independence and autonomy (Arnett, 1992). In most cases, experimentation with risk is transient and does not lead to chronic patterns of high-risk behaviour (Shelder & Block, 1990).

Many young South Africans are sexually active. Almost one third of boys and girls aged 12-17 have had sexual intercourse. One in five of this group reported having had their

first sexual experience at the age of 12 or younger (National Youth Survey, 2000). Buga, Amoko and Ncayiyana (1996) found that among adolescents in rural KwaZulu-Natal, 76% of girls and 90% of boys are reported to be sexually experienced by the time they are 15 to 16 years of age. Boys start sexual intercourse earlier than girls, have more partners and have a STD history nearly twice as often. Craig and Richter-Strydom (1983) conducted a survey of South African youth (16-20 years old) in urban townships. Their findings were that 40% of young women and 60% of young men had more than one sexual partner six months preceding this study. They found that failure to practice safe sex is related to pressure to engage in early and unprotected sexual intercourse, lack of access to health-services, negative perceptions about condoms and low perceptions of personal risk. These findings have been confirmed by Abdool Karim, Soldan and Zondi (1995), who found that among adolescents in KwaZulu-Natal, sexual relations are typified by a pattern of early onset, coercion and lack of condom use. It therefore becomes apparent that young people are at risk, partly through their own behaviour and partly through the attitudes, expectations and limitations of the societies in which they grow up.

The most fundamental risk facing young people stems from simple ignorance of the dangers of sex, caused by lack of information about HIV/AIDS. A South African National Youth Survey (2000) revealed that a significant minority of young South Africans are still unaware of the virus. Fewer young South Africans are aware of the virus, where statistics revealed that 20% of the 12-15 year olds indicated that they have not heard of HIV/AIDS, compared to only 7% of 14-15 year olds and 2% of 16-17 year

olds. Young people are more likely to know about the possibility of an unwanted pregnancy than they are to know about sexually transmitted diseases. Govender and Mody (1999) found that issues related to pregnancy tended to be more of a social stigma than to contracting HIV. The survey also revealed that many adolescents still do not know important facts about the disease and do not know how it is prevented or treated.

Young people who become sexually active at a very early age (15 or younger) are at a heightened risk of HIV. Those who start having sex early are likely to have more partners, and the more partners the bigger the risk. The NPPHCN (1995) study based on interviews carried out with young girls and boys throughout South Africa, revealed that sexual activity starts at a very young age, within a context of unequal power relations, with boys having power over girls. Sexual relationships for boys were strongly affected by social concepts of masculinity and boys were found to experience a tremendous amount of peer pressure to be sexually active. In a study conducted on black high school pupils, Van Aswegen (1995) found that sexual relationships are an important part of young people's social relationships and respondents indicated that pre-marital sex is normal. Therefore it is necessary to empower young people to practice safe sex and to ensure that sex education reaches youth before their first sexual intercourse.

Condom use is the most commonly proposed barrier to HIV infection. Reasons for refusing condoms include reduced sensitivity, perceived invulnerability to infection, ignorance about how to use condoms properly and fear that using the condoms will permanently interfere with fertility (WHO, 1995). In some South African societies,

women are prohibited from discussing sex with men and hence are unable to negotiate safer sex practices (Smart, 1992 & Van Aswegan, 1995). In addition, the condom is basically seen as a male method of contraception and STD prevention. Condoms are often unknown to women or difficult to obtain. A young woman who carries a condom, not only runs the risk of embarrassment, but in many societies a young woman found with a condom will be accused of immorality. In permanent relationships, women may face the risk of losing their partners' if they insist on safer sex, as males may view their partner's suggestion of condom use as an indication of their infidelity. Issues of power relations and gender therefore prevent women from insisting on safer sex practices. Research conducted at the University of Natal revealed that most teenagers believed that while condoms may be used with casual sex partners, it is not necessary to do so with permanent lovers (Singh, 1991). A study conducted by Patient and Orr (1999), regarding the attitudes of teenagers towards using condoms revealed that issues of image seem to outweigh issues of risk in these groups. The subjects commented that if it is too embarrassing or 'silly' to obtain or use condoms, they would rather not use them despite the risks. Furthermore, they indicated that persons at points of sale or distribution outlets of condoms (pharmacies and clinics) are not trained to cater for this group, with moralising attitudes deterring this group. Subjects further indicated that they preferred anonymous points of purchase, such as vending machines.

The dominant cultural view invites us to perceive AIDS as both a well-deserved punishment and a justification for punitive actions (Watney, 1989). Surveys show that people with AIDS are perceived differently from people with other fatal diseases (Van

Aswegan, 1995). Reactions to AIDS are in part reactions to gay men, drug users and racial minorities in general. Internationally, the initial "high- risk" group for spreading AIDS was considered to be of young male homosexuals (Shilts, 1987), and in Southern Africa heterosexual blacks. This finding appears to be consistent with views of the general population (Bedford, 1988). Furthermore, understanding the disease has been complicated by its association with the often taboo and highly complicated issue of sexuality. The connotations engendered by a disease being transmitted sexually has led, in many societies, to marginalised others being blamed for the spread of the disease as well as perceived invulnerability to HIV infection. This pandemic has therefore highlighted the underlying stigmas, attitudes and prejudices in societies (Barnett & Blaiki, 1992). Zazayokwe (1990) in an analysis of black South African communities' responses to AIDS found that most groups do not condone the open discussion of sex. Therefore when a young person contracts a sexually transmitted disease, he or she may take a long time to come to terms with it because of its association with sex. It may take weeks, months or in the case of HIV, years for such persons to seek medical treatment. Furthermore in some communities seeking medical treatment may be delayed because of the belief that traditional healers should be consulted on issues of health and pathology (Bodibe, 1992).

In Africa, HIV is usually spread through heterosexual contact (Schopper, Dousantousse & Orav, 1993). The rate of infection among females especially in many African countries is increasing rapidly. Currently females in South Africa are the group most at risk of infection and the disease is spreading far more quickly among women than men

(DNHPD, 1995). One of the main, unalterable reasons why women are exposed to a greater risk of HIV infection than men is a physiological one. Compounding this risk is that in most countries, sexual expectations and socially acceptable behaviours vary greatly for girls and boys. Boys and girls are socialised differently into their gendered sexual identities. Their sexual identities in turn position them differently in relation to power. The socialisation of boys within a powerful sexuality is mirrored by girls' sexuality being constructed within a realm of powerlessness. Gender roles and patterns of sexual practice are socially constructed as are male dominated views regarding women and sex (Strebel, 1995). According to some feminist theories, men divide women into 2 categories, where they are either depicted as "good women" who are virginal, honourable and married; or as promiscuous, seductive and dishonourable (Caravano, 1995). With regard to AIDS, it is only the "bad" women who are perceived to be at risk. Most societies in Africa, including South Africa, expect women to be monogamous, but are far more lenient in respect of men, accepting or even encouraging promiscuity and polygamy (Schopper et al, 1993).

A study among pregnant adolescent women revealed that violent and coercive male behaviours, combined with young women's limited understanding of their bodies and the mechanisms of sexual intercourse, directly affect their capacity to protect themselves against STDs, pregnancy and unwanted sexual intercourse. Communication between partners on sexual issues is virtually non-existent, and conditions and timing of sex are defined by male partners, giving young women little or no opportunity to discuss the practice of safe sex (Wood & Jewkes, 1998). The NPPHCN survey (1995) found that it is

boys who determine when and how sex occurs, and that girls commonly experience rape and assault even within a relationship. Adolescent women felt unable to refuse sex or to negotiate safer sex, for fear of violence (Varga & Makubola, 1996). A recurrent theme that emerged in the study was that girls perceived sexuality as being a boy's need which girls had to accept and accommodate.

Many men, aware of the risks of HIV infection are now actively seeking out younger girls in the belief that they are less likely to be HIV positive. Smarts Rapid Appraisal of Children Living with HIV/AIDS in South Africa (1996) has highlighted child sexual abuse and its link to HIV/AIDS, suggesting that the increasing incidence of child and adolescent sexual abuse could be attributed to the possible relationship between childhood sexual abuse and the HIV/AIDS epidemic. Mc Kerrow (1997) outlined 3 interesting theories that linked sexual abuse and HIV/AIDS. The first theory is the "prevention theory", which is based on the assumption that all sexually active people are likely to be HIV infected and in order to be "safe", one must choose a partner who is not sexually active. The second theory is the "cleansing theory" which suggests that having sex with a child will cleanse the infected individual of the virus. The third theory, "retribution", is linked to the deliberate spreading of infection to all sectors of society. Anecdotal evidence suggests that disabled children are particularly vulnerable. Those with mental/physical handicaps cannot protect themselves. Some even believe that deaf children cannot become infected, and they may therefore be targeted for "cleansing" purposes.



One of the striking features of the AIDS pandemic is its association with poverty. Evian (1993) stated that those who are most afflicted by poverty are the ones most infected and affected by HIV/AIDS. It is therefore not surprising that the majority of reported HIV cases are found in Southern Africa, as poverty in these countries contribute to the deterioration of health and the rapidity with which diseases are spread (Ankrah, 1991). In South Africa 45.7 percent of the population live in absolute poverty and the highest incidence of poverty is in rural areas and among the least educated (LRS Report, 1995). More women than men are unemployed. Escalating unemployment, as well as poor levels of education and skills, decrease South African women's employment opportunities and wages (Nymen & Caga, 1995). As a result women are often forced to depend on men for economic support and may therefore enter early partnerships (Orubuloye & Caldwell, 1993). Women's financial dependence on men places them in a powerless position to negotiate safer sex or to leave violent and abusive partners (Kline & Oken, 1992). Stress related to poverty may also lead to substance abuse, hence impairing cognitive functioning and increasing the chances of having unprotected sex (Wirawan, Fajans & Ford, 1993).

A study investigating the HIV transmission dynamics amongst students at the University of Durban Westville revealed that the exchange of sex is also seen as an important means of economic survival in order to gain upward mobility and access to resources (Peterson, Bhagwanjee & Makhaba, 2001). The study also revealed that females experience problems in trying to negotiate sexual activity such as condom usage. A final point related to poverty is the quality and availability of healthcare. People are often not able to

obtain transport to clinics and hospitals, contraceptives may also be unobtainable or are too expensive in these communities (Berer & Ray, 1993). Evian (1993) has noted that poverty and all related factors have a negative impact on the success of HIV prevention programmes in poor regions in South Africa. Unless poverty is addressed, the economically disadvantaged will continue to be vulnerable to HIV infection.

### **3.3 MENTALLY RETARDED PERSONS AND HIV/AIDS**

Increasingly, professionals working with persons who are mentally retarded are realising that the AIDS epidemic is a deadly threat to this population (Jacobs, Samowitz, Levy & Levy, 1989). Several reasons have been outlined as to why persons with mental retardation can be identified as a high-risk group for contracting HIV/AIDS. The Virginia Department of Education's Family Life Curriculum (1991) and the National Institute for People with Disabilities in New York (YAI) (1995) have identified some of the factors which increase special education students' vulnerability for not only HIV infection but other sexually transmitted diseases, sexual abuse and teenage pregnancy as well. The factors that place them at risk are as follows:

1. *Knowledge* - Students with intellectual disabilities are generally less knowledgeable than other students about their bodies and their sexuality. This leads to poor decision-making related to their sexuality and an inability to protect themselves. This lack of information can be attributed to the following:

- They have generally been excluded from sex education programmes at school.
  - Parents, who are sometimes uncomfortable teaching sexuality to their children, often feel more insecure teaching a child who has a disability.
  - Many students do not know when and whom to ask for help and may lack the cognitive or communicative skills necessary for asking questions.
  - Students are often unable to get information from written materials, because few publications are written on their reading level.
2. *Misinformation* - Students with intellectual disabilities may have been misinformed about sex through peers, television, and "the street". Some students with disabilities are more likely than other students to believe myths and misinformation because they are unable to distinguish between reality and unreality. They may also become confused and frightened by misinformation.
3. *Social Skills* - Students with intellectual disabilities may have limited opportunity for social development. Their chances to observe, develop and practice social skills are limited or nonexistent. Many mentally retarded students do not have basic social skills e.g. knowing how to greet others and how to show affection appropriately. In addition, deficiencies in social skills lead to difficulty in forming appropriate sexual relationships.
4. *Power and Control* - Some students with disabilities are easily influenced by others. These students may do whatever others suggest without question, due to their

dependency and desire to please. As a result, they may be convinced or manipulated into engaging in high-risk behaviours.

5. *Self-Esteem* - Students with intellectual disabilities may have low self-esteem. In an effort to be accepted by others or to gain attention (either positive or negative), students with low self-esteem are more likely than others to participate in risky behaviours.
6. *Judgement* - Students in special education may have poor judgement, poor decision-making skills and poor impulse control. Without direct instruction, they are unable to recognise the consequences of their actions. Poor impulse control indicates a lack of defensive mechanisms to "say no" or it could lead to curiosity about sex, thus placing them at risk for engaging in unsafe sex.
7. *Choice of Sexual Partners* - Mentally retarded persons may have less choice of sexual partners in the community in which they reside, they may be forced to live sheltered lives or they may live in settings where there is denial by others that they are sexual, as a consequence this may lead to bingeing or unsafe behaviour with familiar people.
8. *Lack of Adequate and Appropriate Recreational Facilities* - The absence of adequate and appropriate recreational facilities for MMR adolescents expose them to situations of potential risk for inappropriate behaviour (e.g. drugs and gangs).

The above references provide compelling evidence of the vulnerability of mentally retarded persons to HIV/AIDS. These special characteristics of this population suggest that the rate of HIV infection could be at least as high as the general population prevalence rate.

### **3.4 PRESENT STATUS OF SEXUALITY EDUCATION**

The South African resource manual, HIV/AIDS and the Law (1997) provides a legislative and regulatory framework for protecting the rights of children threatened by HIV/AIDS. One of the most salient issues outlined in the resource manual is the right to sexuality education. The Children's Rights Charter of South Africa (1992) states that a child should have access to information that will develop his or her physical and emotional wellbeing. It states that children have a right to be educated about sexuality and AIDS and that all children therefore have a right to sexuality education. Interestingly, the Charter, which was adapted after a summit with children, freely acknowledges that children have an active sexuality. The responsibility of the South African Department of Education is to promote quality education for all. Its first White Paper on Education and Training (March, 1995: 6) specified that

*"the overarching goal of policy must be to enable all individuals to value, have access to and succeed in good quality and lifelong education and training. Educational and management processes must therefore put the learners first, recognising and building on their knowledge and experience and responding to their needs. The system must increasingly open access to education and training opportunities of good quality to all children, youth and adults. There must be special emphasis on the redress of educational inequalities among those sections of our people who have suffered particular disadvantages, or who are especially vulnerable, including street children, out-of-school youth, the disabled and citizens with special educational needs".*

Long before the AIDS epidemic appeared, sex education was a moral, religious and political minefield, where authorities argued that sex education will lead to earlier or increased sexual activity. Yet a World Health Organisation summary (1996) of 19 research studies found that in no study was there evidence of sex education leading to earlier or increased sexual activity. Six of the studies found that sex education leads either to a delay in the onset of sexual activity or to a decrease in overall sexual activity. In 10 studies, sex education increased the adoption of safer sex practices by those who were already sexually active and two studies showed that access to counselling and contraceptive services discouraged earlier or increased sexual activity.

Until recently there has been little provision for sex education in the majority of South African schools, due to conservative community, religious and parental views. Sexuality education in South Africa has largely fallen outside the formal-institutions. The majority of sexuality programmes presented by various Departments of Education or Health in South Africa have been perceived as too conservative, moralistic, or unrealistic in terms

of socioeconomic realities and the needs of youth in South Africa (Reddy, Everett & Sternberg; 1992).

The dire need for sexuality education in South Africa from as early an age as possible has been cast into sharp focus by the realities of HIV/AIDS and teenage pregnancy. The school must address the ignorance and immaturity of children, which in turn causes their vulnerability to HIV infection, by supplying them with relevant knowledge about AIDS (FAWE, 2000). Many children, however, reportedly know the ABC code against AIDS infection, namely abstinence (from pre-marital sex), faithfulness (to one partner) and that one should condomise; yet their sexual conduct seems to remain irresponsible. Some researchers (Perkel, 1992) have shown that mere knowledge about AIDS does not reduce high-risk sexual behaviour. Therefore, it becomes evident that apart from knowledge, the right attitudes and values as well as skills for behaviour change are critical. To address the need for moral education, the Minister of Education, took the initiative to promote the development of a system of values in schools, in order to regenerate the ethical fibre of South African society (The Department of Education, 2000). AIDS education should not only focus on knowledge, attitudes and values that promote responsible sexual behaviour. Learners should also be equipped with life skills, such as responsible lifestyle and decision making, assertiveness, self-confidence, coping and negotiating skills, ability to handle peer pressure and interpret conflicting messages, development of a capacity to prevent personal disaster and to value and protect oneself and others (FAWE, 2000). Furthermore, through education the stigma, shame, fears, prejudices and discrimination regarding AIDS and AIDS victims can also be lifted. In view of the above and the

- alarming statistics regarding HIV/AIDS, sexuality education should be granted deserved priority at schools and form part of the general school curriculum (FAWE, 2000).

### **3.5 HIV/AIDS PREVENTION**

The national and provincial governments and various non-governmental organisations (NGO's) have implemented a number of prevention efforts in South Africa. These efforts include 3 areas of action: information, education and communication; peer education, and behavioural risk reduction (Harrison, Smit & Myer, 2000).

Information, education and communication form the starting point for HIV prevention activities and have been crucial for raising awareness of HIV/AIDS in South Africa. Although South Africa has been criticised for its slow pace in responding to the epidemic, a high level of awareness exists among the general population. In particular, the mass media have publicized HIV/AIDS through television programmes such as Soul City, a weekly drama series that disseminates information about the epidemic and its consequences. Various documentaries, regarding HIV/AIDS and HIV positive persons have also been screened. Radio has also been an important medium for HIV/AIDS education, particularly through community radio stations such as Radio Zibunle in the Western Cape. The government, with private sector funding has set up partnerships against AIDS and various NGO's and have shown support through the Red Ribbon



campaign, in which government officials wear a red ribbon at public appearances in order to focus attention on the epidemic (DoH, 1998).

A notable information, education and communication (IEC) campaign was the Department of Health's "Beyond Awareness Campaign", which addresses HIV/AIDS and its prevention through popular media, widespread promotion of condoms, encouraging open dialogue on the disease and sponsoring HIV/AIDS awareness activities (DoH, 1998). Other notable IEC efforts in South Africa have included youth magazines, such as *Laduma*, published in comic book form and *Sex News*, published in English and Zulu, using language familiar to young people. More recently, Love Life, a national youth sexual health initiative, has staged a mass media campaign using billboards, newspaper advertisements, radio and other outlets, to address issues regarding sexual health and the underlying causes of HIV/AIDS (NASHI, 1999).

Although these programmes have played an integral role in AIDS awareness, their impact on individuals and communities have not been evaluated. Other smaller prevention programmes have been evaluated for their impact on individuals and communities. One such programme was an evaluation for school-going youth in Cape Town, which led to increased knowledge of HIV transmission and prevention, greater acceptance of people with AIDS and had led to some behavioural changes. The IEC programmes have played a particularly important role in HIV awareness in South Africa. Gallaway (1999) stated that with HIV awareness and knowledge very high throughout South Africa, the attention of

researchers and programmers should be shifting towards action that will lead to an increase in preventative behaviours.

Condom distribution is an important component of any HIV prevention programme. The number of free condoms distributed by the Department of Health has increased from some 20 million in 1992 to over 170 million in 1997 (DoH, 1998). Free condoms are distributed by a range of outlets, viz. public health facilities, AIDS training, information and counselling centres, NGO's and private businesses. The "Viva Condoms" campaign, a poster distribution initiative by the Department of Health, has attempted to popularise condoms and its importance in safe sex. It is apparent that condom use and safer sex practices entail more than making decisions based on knowledge (Mwale & Burnard, 1992). It is important for people to regard themselves as being at risk to HIV infection (Perkel, 1991). If people do not perceive themselves to be at risk, they will be less motivated to listen to prevention messages and to modify risk behaviour.

The use of trained individuals from a particular target group to educate their peers is an increasingly popular method for HIV/AIDS education. Most studies (Van Aswegan, 1995) have indicated that the choice of persons from whom youths prefer to obtain knowledge of sex-related matters was their peers. Their motivation for this is that they feel comfortable talking to peers about sex related issues, whereas teachers, parents and adults tend to reject premarital sexual involvement and feel uncomfortable discussing sex-related issues.

Peer education programmes empower people as well as educate them. First, a substantive peer education programme transfers the control of knowledge from the hands of experts to lay members of the community, making the educational process more accessible and less intimidating. Second, it allows group debate and negotiation of messages and behaviours, leading to the development of new collective norms of behaviour rather than seeking to convince individuals to change their own behaviours based on a notion of rational decision making (Campbell, 2000). Finally unlike outsiders, peer educators remain in the field where they become role models for positive behaviour change, and are able to provide ongoing support. Peer education programmes in South Africa are increasing with a condom distribution effort under way in Mpumulanga (PPASA, 2000). Another peer-based approach involves the use of drama to impart educational messages, especially to the youth. In KwaZulu- Natal, DramAidE, relies on this method, where peer leaders are recruited from schools to design and provide HIV/AIDS educational drama to classmates (DramAidE, 1999). This method was evaluated in a randomized controlled trial, which showed significant increases in knowledge and improvements in attitudes among students exposed to the programmes, and increased condom use among sexually active students (Harvey, Stuart & Swan, 2000).

The impact of many prevention programmes is limited because of the emphasis on knowledge and prevention without imparting skills needed to achieve these ends. Studies (Ulin, 1992) have shown that providing people with knowledge does not necessarily translate into behaviour change. Most prevention programmes ignore the underlying causes of the epidemic and do not address fundamental issues that people are faced with

when making decisions about safe sex. A national Life Skills programme for adolescents has been developed in the country by the Department of Health and Education in conjunction with the Planned Parenthood Association of South Africa (PPASA). The aims of this programme are to increase knowledge, develop skills, promote positive and responsible attitudes, and to provide motivational support to help adolescents engage in safer sexual behaviour and to reduce their risk of being infected with HIV (Macintyre, Alons, Brown, Magnani & Kaufman, 2000). Since 1997, PPASA and other NGO's have trained approximately 10 000 teachers to teach the Life Skills programme, aimed at reaching 2 teachers in each secondary school in each province. Early evaluations of the programme have shown that there have been difficulties in its implementation (Macintyre et al, 2000).

In spite of the many attempts to develop ways to manage the spread of HIV infection, the rapid increase in the incidence and prevalence of HIV infection indicates that these efforts have not had a significant impact in the country as a whole. To deliver more effective HIV prevention programmes, Harrison, Smit, Meyer (2000) make the following suggestions:

- Interventions should be targeted at high-risk groups.
- There is a need to develop appropriate and well - designed interventions and for their effects to be evaluated. Several reviews (Kim, Stanton & Lix, 1997; Oakley, Fullerton & Holland; 1995 & Kirby, Short & Collins; 1994) have shown that many interventions are poorly designed in terms of objectives and content and that they do not place sufficient emphasis on the development of cognitive skills.

- Appropriate and culturally relevant messages should be promoted.
- Behavioural messages and prevention efforts should be combined and links to health services should be developed.
- Adequate resources viz. human and financial should be provided to implement programmes effectively and to the populations most in need.

### **3.6 SEXUALITY EDUCATION FOR THE MILDLY MENTALLY RETARDED ADOLESCENT**

In recent years, there has been an increasing acceptance and provision of sex education for the general school population. Along with this change has come a growing recognition of the need for a parallel concern for special groups such as the mentally handicapped. The majority of mildly retarded adolescents will become part of ordinary society. That is, they will live in the general community and by and large share in the same life experience as their more able peers. However, what this group will not share with the general population is a level of educational retardation that will limit their opportunities and render them a group particularly at risk to every kind of social hazard or exploitation. For them, lacking in sex education, these risks will be multiplied by ignorance and lack of socio-sexual skills.

One assumption underlying the "normalisation" principle is that people with intellectual difficulties can successfully integrate into the general community. Shopping, use of public transportation etc, have all been favourite targets for education programmes and

high levels of success have often been achieved. There is, however, one critical area in which this claim cannot generally be sustained and that is in the appropriate expression of sexuality (Brown, 1994). The areas of sexuality and intimate relationships are arguably the most difficult of all human interactions to pursue and for many people with intellectual difficulties there are insurmountable barriers (Mc Leod, 1992). Clearly sex education is a central issue for community integration of mentally retarded persons, yet they are greatly disadvantaged in the process. Firstly, the nature of their disabilities means they are likely to experience difficulties when dealing with subtle and complex issues regarding their sexuality and sexual expression. Second, those who are from restricted family environments must learn appropriate forms of sex-related behaviours late in life in order to avoid negative social judgements. In essence, there would seem to be two main conceptual factors influencing sex education for mildly mentally retarded persons viz. the broad social atmosphere with regard to sexual expression and the specific characteristics of educational subnormality. Hence, the development of appropriate sexual skills is easier said than done, because sex education is such a vexed topic particularly in the area of disability. In order to avoid confronting sexual issues, the community tends to "deny" that people with intellectual difficulties are sexual beings.

Hall, Morris and Barker (1973) found a tendency for mildly retarded to be conservative in their sexual attitudes. This is perhaps due to both parents and caretakers having to respond to the "sexual vulnerability" of the mildly mentally retarded with attempts to inculcate a puritanical sex ethic, even when this was at variance with their own lifestyle. In comparing the sexual knowledge of adolescents with mild mental retardation to

adolescents without retardation, Watson (1980) indicated that the former as compared to the latter are in a state of comparative lag. His results showed that compared to a general school population, these young people are more conservative in their attitudes, less knowledgeable and more directed into an extended childhood which casts their caretakers into a protective role. His findings were confirmed by Gilles and Mc Evens (1981), who showed that adolescents with mild intellectual disability had significantly more gaps in their knowledge of contraception, venereal disease and abortion as compared to their non retarded peers.

Parents of handicapped children have generally been found to have confused and ambivalent attitudes towards the sexuality of their offspring (Wolf & Zarfes, 1982). Females generally receive more sexuality education from their parents than males (Brantlinger, 1984). Non parent sources of information about sex and models of rational and responsible decision making may be even less adequate for individuals who are mentally retarded. Peers are probably less knowledgeable than average and may not be good models of responsible behaviour. In addition, mentally retarded persons, because of their limited literacy skills, and often limited mobility in the community, may have little access to accurate and informative resource materials about sexual topics. They may be less capable of sorting out messages about sex from the popular media. School can be considered a source of sexuality education for students with mild mental retardation, however there is little documentation that much sexuality education is actually being provided in the special education classroom (Brantlinger, 1984).

A recent investigation of special education teachers revealed that few teachers have ever included sexuality education in their programmes and most had not covered the subject in detail or depth. Yet the teachers described their pupils as frequently sexually active, predominantly misinformed or uninformed about sex, experiencing problems in sexual/social interactions and anxious to learn more about sexuality in school. The writer's verbal communication with principals of three special schools for mentally retarded persons in the Durban region revealed that although sexuality education was included in the schools' policy document, no sex education programmes were provided to the students. Watson (1980) stated that the need for sex education programmes assumes a greater importance for these adolescents, not only because of their lack of knowledge, but also because of their limited access to accurate information.

There exists a great deal of uncertainty about the question as to how intellectual limitations will act as barriers to equipping educationally retarded persons to deal with complex sexual issues. The concern that has been raised, is that while skilled teaching may enable specific abilities to be achieved in such areas as contraceptive use or awareness of sexually transmitted diseases, such teaching can do little to raise these learners levels of reasoning. Consequently, these young people may find it impossible to achieve the kinds of moral development that are required for more complex social judgements (e.g. abortion). Although opinions vary as to whether formal sex education makes a significant difference, there does seem to be a common view among professionals that sex education programmes are necessary ( Edmonson, 1980;



Watson, 1980 & Williams, 1991). Pitceathly and Chapman (1985) claimed that with sex education programmes, people who have intellectual disabilities can learn to express themselves in sexually appropriate ways. Research has indicated that sex education greatly increases contraceptive and reproductive knowledge; improves social skills and reduces inappropriate sexual behaviour of mentally retarded people (Demetral, 1981 & Green, 1983). Nevertheless, despite positive findings, there is still considerable resistance by significant others to sex education for mentally retarded individuals. Opponents fear that sex education will jeopardise the innocence of mentally retarded persons, overstimulate their concern with sex, and prompt them to act in sexually inappropriate ways (Demetral, 1981). Heschusius (1982) suggests that there is an essential need for intimacy in each person's development, with or without mental retardation and this need is not fulfilled solely by the much needed sexuality education programmes, but by an underlying change in society's attitude to the sexuality of people with mental retardation.

Another issue that requires attention is the content of sex education programmes for the mildly mentally retarded. Sex education, which casts mildly mentally retarded persons into a dependent protective role, may be ineffective because it denies the social reality of being adolescent. The uniquely difficult task facing the sex education of mildly mentally retarded adolescents is to develop sufficient knowledge and a solid attitudinal basis to enable such a group to break away from adult dependence, to experience normal adolescent rebellion and to experiment with socio-sexual relationships without becoming sexual casualties (Watson, 1980). Mc Cabe and Cummins (1996) state that adolescents with mild intellectual disabilities lack knowledge about sex and intimacy, and this in turn

makes it difficult for them to form close interpersonal relationships. Therefore, sex education programmes should be designed not only to provide information about sexual issues, but also to provide skills in the interpersonal domain. In this way people with intellectual deficits would be able to experience the pleasure and enhance the quality of their lives (Mc Cabe, 1993).

The AIDS epidemic poses a serious threat to people with mental retardation, the magnitude of which has not been fully realised. Hence there is a dire need for sexuality education for this group of learners as early as possible. Some researchers (Brantlinger, 1984,1985; Adams, Tallon & Alcorn, 1982) have been interested in assessing the perceptions of various groups (e.g. staff, parents and persons with disabilities) concerning sexuality in persons with mental retardation, others in arguing whether this population be allowed sexual expression (Abramson, Parker & Weisberg, 1988). Although programmes designed to provide sex education to individuals with mental retardation have been implemented and evaluated over the past years, a discussion of sexually transmitted diseases is notably absent from many of these programs and few educational programmes exist to help this population cope with the threat of HIV infection (Scotti, 1996).

Many individuals with mental retardation are sexually active and are a high-risk group group for HIV infection, unless specific attempts are made to address risk-reduction. Scotti (1996) assessed the effectiveness of an HIV/AIDS education and risk-reduction skills training programme for persons with mental retardation. Subsequent to the subject's

involvement in the HIV/AIDS education program, statistically significant increases in HIV/AIDS knowledge were demonstrated and important misconceptions about the transmission of HIV were dispelled. It was also demonstrated that while there is a need for HIV/AIDS education programmes, such programmes must include a skills training component. In the above mentioned study, even though most of the participants knew that a condom can help prevent HIV transmission and though many of them indicated that they had previously used a condom, they were still unable to perform most of the steps in the condom usage role play. Implicit in the above-mentioned research is that AIDS intervention programs are successful with MMR persons and can greatly reduce high-risk behaviours, provided they include a skills training component.

### **3.7 DIFFICULTIES IN IMPLEMENTING HIV/AIDS EDUCATION**

Professionals working with HIV/AIDS education programmes are faced with obstacles and challenges. For the mentally retarded adolescent population, there is a paucity of models of HIV/AIDS education. Educators are well aware that messages about HIV/AIDS must be tailored for the specific audience if they are to be meaningful. Nowhere is the need more apparent than in the education of individuals with mental retardation.

In the delivery of HIV/AIDS education, particularly that aimed at the MMR adolescent, Jacobs et al (1989) have identified various difficulties and hurdles, some of which are

difficult to predict. They add that most HIV/AIDS educators are very likely to encounter some of these:

- AIDS is fatal. Few people are comfortable discussing death. When the issue becomes the person's own mortality, the discomfort intensifies and usually leads to some denial about one's personal risk. In addition, people with mental retardation often do not understand the finality of death and the connection between disease and death.
- AIDS is a sexually transmitted disease. This means in order to teach people with mental retardation how to avoid HIV infection, sex must be discussed. As mentioned earlier, people with mental retardation may not be comfortable discussing sex. Another compounding factor is that most people, not only those with mental retardation, will tend to resist any change in their sexual activities.
- AIDS is also transmitted through intravenous drug use, another topic that can pose difficulty in terms of discussion and understanding.
- There is much to know about HIV infection and available information is frequently confusing, especially to people with mental retardation. For example, HIV infection has an incubation period of several years between the time of exposure and the appearance of symptoms. This factor is further complicated by widespread misconceptions about AIDS, especially the modes of transmission, the difference among various levels of HIV infection and confusion about the HIV antibody test.

- In the general population, AIDS is commonly associated with stigmatised groups, such as gays and intravenous drug users. McCabe (1993) claimed that significant others' attitudes towards sexually related issues are learned either directly or indirectly by persons with mental retardation. In persons with mental retardation, the ability to generalize is absent or greatly reduced, as a result they may not be willing to accept that groups of people, other than gays and intravenous drug users can be infected and that sexual contact with these persons can place them at risk.

As noted above, AIDS education entails discussing many topics that most people would rather avoid. It is apparent that in terms of AIDS prevention education, information alone is not enough to change behaviours. Programmes must also change the participants' attitudes and values (Jacobs et al, 1989). However, despite these obstacles, organisations such as the Young Adult Institute (1996) and the Arc (1995) have successfully run AIDS education programmes for persons who are mildly to moderately mentally retarded.

## **CHAPTER 4**

### **THEORETICAL FRAMEWORK**

#### **4.1 INTRODUCTION**

This chapter attempts to examine how various models can be applied in order to broaden our understanding of the complex nature of adolescent thinking and behaviour and the mental "pathways" for risk taking. In the first section, models of child development relate risk behaviours to a person's level of cognitive development, socio cultural processes and psychosocial development. This will be followed by a discussion of behavioural models of health behaviour where risk taking is explained in terms of a combination of cognitive (e.g. attitudes, beliefs, self efficacy), behavioural skills development (e.g. negotiations in problem solving) and external factors (e.g. peer influence). The chapter concludes with a look at the school setting as a health promoting concept where the capacity of schools to provide a base for AIDS education is explored.

#### **4.2 MODELS OF CHILD AND ADOLESCENT DEVELOPMENT**

Intellectual ability is a commonly measured attribute among youth because it has been associated with resilience and success (Masten, Garmesy, Tellegen & Pellegrini, 1988). As children develop more sophisticated cognitive skills, they acquire the ability to think

rationally, to reason and to test hypotheses. However, adolescents do not always exercise these skills, particularly when faced with the appeal of a high-risk behaviour. Though AIDS education reaches many adolescents in various formats, the incidence of adolescent HIV infection has risen dramatically (UNAIDS, July 2000). This is in part due to the fact that interventions often neglect to assess and address children's varying levels of cognitive development when disseminating information. Currently the only available course of action to decrease AIDS-related morbidity and mortality is to modify risk behaviours or to prevent onset of these behaviours through developmentally appropriate AIDS education programmes. Bush and Iannotti's (1990) longitudinal research on the development of children's health beliefs suggests that attitudes regarding personal risk and perceived vulnerability begin to stabilize prior to adolescence. One useful framework for contextualising adolescents' understanding of health and illness, their knowledge of AIDS and their level of understanding of disease processes associated with AIDS, is Piaget's stages of cognitive development.

Piaget's theorising is concerned with 4 major sequential stages of cognitive development viz. sensorimotor, preoperational, concrete operational and formal operational thinking, that represent qualitative differences in cognitive functioning (Piaget, 1954). An important feature of his theory is that an individual actively constructs his world. The act of perception is considerably more than a passive response to stimuli; each individual has in his or her mind a cognitive structure, a model of reality that includes not only specific facts but also the rules of logic by which reality operates, and all events are experienced

in terms of this cognitive structure. Piaget stated that cognitive development depends on four variables: maturation, physical experience, social experience and equilibration. The term maturation refers to the development that results from organic or biological changes in the child. However, maturation by itself does not account for cognitive development. Little cognitive development would occur if the child were reared in a completely unstimulating environment. A third impetus to cognitive development is social interaction. Social interaction is not only a major source of factual information for the child, but is also important as a developer of logic. The final process of cognitive development is the uniquely Piagetian process of equilibration, the establishment of equilibrium between one's experiences and cognitive structure.

Inhelder (1958), a pioneering developmental theorist applied the Piagetian model of cognitive development to mentally retarded persons. She found that the responses of mildly mentally retarded children were quite similar to those of normal children of younger ages, substantiating the developmental theory that mentally retarded children progress through the same stages as normal children and in the same order, but their rate of development is slower. She stated that not only was their rate of development retarded, but their development displayed what she called viscosity, meaning that even after they were sometimes capable of more advanced levels of thinking, they were likely to display less mature types of functioning. Inhelder suggested that mildly retarded persons do not progress beyond the concrete operational stage of development which is normally reached between the ages of 7-12 years and is characterised by the acquisition and use of cognitive operations and mental activities that are components of logical thought.



Research by McManis (1969) and Stephen and McLaughlin (1974) supported the findings of Inhelder, that mildly retarded subjects performed as well as non retarded subjects matched on mental age and that no retarded child showed evidence of formal operational thought and therefore lacked the capacity to think abstractly. In addition, Stephen and McLaughlin (1974) successfully demonstrated that cognitive development of retarded people begins to level off sooner than does the cognitive development of non retarded subjects. The above findings by Inhelder (1965), McMannis (1969) and Stephen et al (1974) have important implications for the understanding of concepts of illness and prevention. In addition, they have important implications for the development of AIDS education programmes for mildly mentally retarded adolescents, where it should be noted that AIDS education will be ineffective unless it corresponds to the conceptual level of students at whom it is directed and takes into account each child's knowledge within the framework of his or her cognitive process. Vos (1994) noted that intervention programmes in western countries may not be suitable in countries such as South Africa where there is a high rate of illiteracy and poor education that influences people's ability to understand and integrate AIDS messages. Similarly, programmes designed for non retarded adolescents may not be suitable for retarded adolescents, therefore intervention programmes for this group of learners need to be tailored according to their level of intellectual functioning.

Vygotsky's (1934) socio-cultural theory offers a different lens through which to view cognitive development by stressing the importance of specific social processes, that

Piaget and other developmentalists overlooked. Vygotsky's socio-cultural theory provides a useful framework for understanding cognitive development as a socially mediated process that may vary from culture to culture. He claimed that human cognition is inherently socio-cultural because it is affected by the beliefs, values and tools of intellectual adaptation passed to individuals through their culture. Cognitive development, he said depended much more on the people in the child's world and that children's knowledge, ideas, attitudes and values developed through interaction with others. A study undertaken by Preston-Whyte and Zondi (1989) confirmed the relationship between socio-cultural factors and HIV transmission. Their study showed that one of the greatest barriers to the adoption of safe sex behaviours in South Africa is the pervasive view that girls should prove their fertility before marriage. The importance of fertility in South African society and the view amongst young men that condoms are incompatible with male notions of masculinity and pleasure (Peterson et al, 2001) create mindsets that increase the risk of transmission of HIV. A further example of a socio cultural belief that could increase the risk of HIV transmission is the traditional African belief where disease is viewed as an external entity with no implications of interpersonal physical contact as a causative factor. This could create a mindset where sexual intercourse is ruled out as a method of transmission, encouraging involvement in risk behaviour.

Vygotsky theorised that children's ability levels should not be judged merely on what they could do, but on what they were capable of, with help. He uses the term "zone of proximal development" to explain tasks that might be beyond the child's capability alone

but that are possible with assistance from an adult or in collaboration with a more advanced peer. This has important implications for mildly mentally retarded adolescents, where adaptive social growth and increased functional independence can be effectively accomplished through participation in collaborative activities with adults and more advanced peers. The Young Adult Institute in New York (1995) has successfully demonstrated that potential obstacles to learning about HIV/AIDS for persons with mental retardation can be overcome by means of skilled trainers facilitating AIDS intervention programmes. In the programmes advocated, mentally retarded persons who were found to have trouble understanding abstract concepts, difficulty processing information, or poor memory were given individualised training and group support. As a consequence, increases in knowledge, awareness and social skills were evident. Sexual behaviour and high risk taking situations in the South African context could be viewed in terms of this model which provides a framework that includes the cultural and social context and its influence on cognitive growth and development. An important aspect of the intended intervention is to ensure that the content of the programme is language and culturally appropriate. Understanding the social and cultural factors that shape risk behaviour and the usefulness and positive effect of collaborative learning situations are vital in developing AIDS education programmes for mildly mentally retarded adolescents.

Erikson's (1963) theory of psychosocial development offers a basic framework for understanding the needs of young people in relation to the society in which they grow, learn and later make their contributions. He emphasized the emergence of the self, the

search for identity and the individual's relationship with others throughout life, which takes place within the cultural framework. According to Erikson, the most important task of adolescence is to resolve the "identity versus role confusion" crisis. The adolescent develops a sense of identity by adapting his or her own set of values and social behaviours, but this generally does not occur before the adolescent experiments with a variety of values and social behaviours, often to the displeasure of adults. For adolescents, therefore, engaging in risk behaviour or unprotected sex would be a normal part of exploring and establishing their identity. He added that in the search for identity, the adolescent moves from a world guided by parental wishes to a world in which he or she is confronted by a host of choices regarding sex, drugs, friends and a variety of other situations. Theorists have indicated that the onset of puberty is associated with an important biologically based psychosocial conflict between the powerful urge to engage in sexual relations and societal values against premarital sex. Despite this conflict the proportion of adolescents engaged in premarital sex has increased steadily.

The findings of a national survey of South African teenagers commissioned by the Kaiser Family Foundation (2000) indicated that many young South Africans are sexually active and about one third of boys and girls aged 12-17 had had sexual intercourse. This finding can be understood in terms of explanations put forward by Jessor and Jessor (1975) as to why adolescents may be engaging in sexual relations so early in their lives. They advance various explanations: to prove to themselves and others that they have achieved a mature status, to establish a sense of independence, to affirm sexual identity, to gain support for the belief that they are attractive to others, to reject social connotations or behave in a

socially unacceptable manner and lastly to gain respect from their peers. These emphasise the importance of the adolescent identity and its effects on sexual behaviour. It is therefore important to view sexual and high risk behaviour within the context of these theoretical views where due consideration is given to the psychosocial dilemmas the adolescent faces and has to resolve, as well as the emphasis of culture in exploring their identity. A key dimension then, in the development of HIV-prevention programmes for adolescents should focus on positive alternatives in potentially unhealthy environments, so as to facilitate the resolution of developmental crises in the adolescent period, so that a positive identity will lead to responsible behaviours and informed decisions.

#### **4.3 BEHAVIOURAL MODELS OF HEALTH BEHAVIOUR**

The AIDS epidemic poses a serious threat to people with mental retardation, the magnitude of which has not been fully realised by many working with this population. Models of effective AIDS education have been developed within other populations. Jacobs, Samowitz, Levy and Levy (1989) have suggested that the only method available to thwart the spread of the disease among persons with mental retardation is to utilize key principles in existing models. However these models should be adapted and tailored for their level of functioning if the information is to be meaningful.

Social psychological and health promotion models have previously been used to predict health behaviour. One model that specifically addresses health behaviour is the Health

Belief Model (Janz & Becker, 1984). The model focuses on two related appraisal processes, viz. the threat of the illness and the behavioural response to that threat. Threat appraisal involves consideration of both the individual's perceived susceptibility to an illness and its anticipated severity. Behavioural evaluation involves consideration of the costs and benefits of engaging in behaviours likely to reduce the threat of the disease. In addition, the model suggests that health - related decisions are triggered by environmental cues. A recent addition to the Health Belief Model has been the concept of self-efficacy, which can be defined as the degree to which an individual believes that one is capable of executing recommended preventative health behaviours. Prewitt (1988) in developing a variation of the health belief model, included another essential element, viz. peer support. The dynamics of group processes (i.e. support and confrontation) within each group of similarly functioning people is essential to the reinforcement of the educational messages. However, the application of this model is promising in terms of developing messages that are likely to persuade individuals to make informed health-related decisions.

The Young Adult Institute (YAI) in New York has successfully adapted principles of the Health Belief Model for use with mild and moderately retarded persons and have consequently documented increases in awareness of HIV and risk reduction behaviours (Jacobs et al, 1989). The interventions by YAI combined principles of the health belief model with practical exercises to increase participants' knowledge about HIV/AIDS, and to teach risk reduction behavioural skills in such areas as condom use, assertiveness to resist unsafe sex and negotiations of safer sex practices.

Other more general social psychological models have also been applied to health behaviours, such as Social Learning Theory (Bandura, 1986); Cognitive Dissonance Theory (Festinger, 1957); Theory of Planned Behaviour (Ajzen & Fishbein, 1975) and the Attitudes, Social Influence and Self Efficacy (ASE) model (De Vries, 1995).

Many early health programs were premised on the belief that changing attitudes will lead to behavioural change. Implicit in these approaches were theories such as Cognitive Dissonance Theory (Festinger, 1957) that stated that attitude and behavioural change can be achieved by providing information counter to the attitudes presently held by an individual. The state of mental discomfort, so created, known as cognitive dissonance, acts as a motivator either to reject new information or to adopt attitudes and behaviours more consistent with new information.

Despite the modest relationship between attitudes and behaviours, attitudes still form an important determinant for health related behaviours, hence elaborations of the attitudinal theory have included components such as intentions to behave, social influences (Ajzen & Fishbein, 1975) and the perceived ability to implement the desired behaviour (Ajzen, 1985). The Theory of Planned Behaviour has been widely used to explain health behaviours and the factors underlying the performance and non-performance of any given behaviour. It is based on the assumption that behaviour can be predicted by the behavioural intention, which is determined by the individual's attitude and the perceived subjective norms from other people. The Theory of Reasoned Action utilises the concept

of intention, to describe the likelihood of whether people plan to change their behaviour. Attitudes comprise beliefs about the behaviour under consideration, whereas social norms comprise an appraisal of the likelihood that salient others would wish the individual to engage in the behaviour under consideration, and their motivation to comply with these expectations. An assumption of the Theory of Reasoned Action is that the individual has the resources, skills and opportunities to engage in the desired action. This is frequently not the case and to address the weakness, a further dimension was added viz. control over the intended behaviour, which reflects the perceived ability of the individual to engage in the desired behaviour. Perceived control combines with attitudes and perceived norms to form an intention to engage in a particular behaviour. This larger model is termed the Theory of Planned Behaviour (Ajzen, 1985).

The Attitude-Social Influence-Efficacy-Model (ASE) is useful in determining the psychosocial determinants of behaviour (De Vries & Mudde, 1998). It originated in the Theory of Reasoned Action, but has added several concepts from various models, including Bandura's Social learning Theory. In accordance with Ajzens (1985) postulation, the ASE model states that behaviour is a function of an individual's intention. A person's intention to change his behaviour is determined by three classes of cognitive factors: attitudes, social influence and self-efficacy expectations.

- Attitude refers to the opinions of an individual about a behaviour and is therefore determined by the expectation of various consequences, beliefs about the behaviour and the corresponding evaluations of these consequences.



- **Social Influences** can be described as the process whereby people directly or indirectly influence the thoughts, feelings and actions of others. With regard to the impact of social influence, a distinction between social norms, perceived behaviour of others, social support and social pressure can be made (De Vries, Backbier, Kok & Dijkstra, 1995).
- **Self-Efficacy:** Prevention of infection with the HIV virus requires people to exercise influence over their own motivation and behaviour. Success in negotiating and preventing behaviours that put adolescents at risk for HIV requires not only skills, but also a strong self- belief in one's capabilities to exercise personal control over their motivation, behaviour and their social environment. Numerous studies have been conducted linking perceived self-efficacy to health promoting and health impairing habits (Bandura, 1989).

The results of these studies show that perceived self-efficacy can affect every phase of personal change, whether people even consider their health habits, how hard they try should they choose to do so, how much they change and how well they maintain the changes they have achieved. A 1995 study by the National Progressive Primary Health Network in South Africa found that many adolescents lack confidence and skill to negotiate sexual issues, contraception and prevention of infection and that these factors could be attributed to poor self-efficacy. According to the ASE model, the 3 proximal factors, attitude, social influence and self-efficacy are assumed to be moderated by external variables viz. demographic, sociological and personality variables that influences a person's intention and behaviour. In other words, these external factors influence the cognitive factors and consequently behaviour. From the point of view of HIV/AIDS

education, it is important to know which external factors influence risk taking behaviour so that educational activities could be tailored accordingly.

The foregoing has described a few theoretical models that contribute to our understanding of HIV/AIDS and to guide HIV risk behaviour change. Several of these models were initially conceptualised for health problems other than HIV, but are now being applied to HIV prevention. Among the features shared by these models are the perspective that success in changing HIV risk behaviour is determined by cognitive factors (including knowledge, attitude, beliefs and perceived self efficacy), behavioural skills factors (skills in sexual assertiveness, negotiations and risk reduction problem solving) and external factors such as peer influence and normative supports which serve as reinforcement for behaviour change efforts. Although every factor is considered important in the decision making process, no clear operationalisation has been developed as to how the various factors combine to result in a final decision

#### **4.4 THE SCHOOL SETTING AS A HEALTH PROMOTING ENVIRONMENT**

The health promoting school concept views health as physical, emotional and social well being, where education and health are seen as inseparable. An attractive feature of the health promoting schools initiative is that the school is viewed as a place where all members of the community work together to provide students with integrated and positive experiences and structural support which promotes and protects their health.

*"In many developing countries, more than half of the population is below the age of 25 years. In many countries over two thirds of adolescents aged 15-19 years have had sexual intercourse. Adolescents and young adults (20 - 24 years of age) account for a disproportionate share of the increase in reported cases of syphilis and gonorrhoea world-wide. In addition at least one fifth of all people with AIDS are in their twenties and therefore most likely to be infected with HIV as adolescents "* (School Health Education to prevent AIDS and sexually transmitted diseases. WHO AIDS SERIES, 1992:11).

In view of these startling statistics, important questions that require attention are: what are the most appropriate ways of reaching these groups and what potential do schools possess to provide a base for AIDS education. In almost any community the school is a setting where many people learn and work, care and respect each other and where the child spends a great deal of time. Schools are institutions that young people regularly attend, they are geared towards increasing students' knowledge and improving their skills and they are especially well suited to educate young people about subjects such as sexuality. It is therefore reasonable to assume that the school is a setting where health programs can have their greatest impact since they influence children at important stages in their development, viz. childhood and adolescence. Moreover, virtually all youth attend school before they initiate sexual risk-taking behaviours, and a majority are enrolled in school when they initiate intercourse. Thus the school as a public institution provides a strategic platform with a broad opportunity and mandate for addressing and reducing sexual risk-taking behaviours.

There is a growing population of young people in South Africa, with 36.3% of the population being under the age of 15 years (Health Promoting Schools, 1997). In a recent survey of pregnant women under 20 attending antenatal clinics, 12.9% tested HIV positive. It is also estimated that in the year 2010, in a class of 40 eighteen-year-old children, 11 will be HIV positive (Health Promoting Schools, 1997). In light of these shocking statistics, the health promoting schools initiative is gaining momentum at both the national and provincial level in South Africa. When school staff, parents and community members work together, HIV transmission is viewed as a community problem rather than an individual problem. This is not only particularly appealing in contributing to the prevention of HIV infection, but also in counteracting prejudices and negative cultural and social views towards people living with HIV/AIDS and creating an environment of respect and compassion. Moreover, students are most likely to adopt healthy sexual behaviour patterns if they receive information and support through multiple channels such as parents, peers, teachers, community members and the media.

In KwaZulu-Natal the Health Promoting Schools initiative has been embraced by the Psychological, Guidance and Special Education Services (P.G.S.E.S). A Health policy for LSNS schools should be developed within a framework ensuring that a needs analysis is done for the school, which is followed up with a co-ordinated programme of action, involving all resources available in the area. Given the high level of risk behaviour among people with mental retardation, a strong case can be made for the need to routinely integrate HIV prevention activities into LSNS schools.

#### **4.5 CONCLUSION**

Drawing on all the models above, the present study proposes to investigate the knowledge, attitudes and sexual practices in relation to AIDS in a sample of 14-16 year old mildly mentally retarded learners in a school for mentally retarded persons in Durban, KwaZulu-Natal. The study is contextualised within the theories of child development that provide a useful framework for understanding the way in which health and illness is conceptualised. Further, psychosocial and cognitive behavioural models of behaviour change, as well as community-level models such as the Health Promoting Schools Initiative have also been reviewed to conceptualise how knowledge, attitudes and belief systems serve as determinants of behavioural outcomes, thereby influencing health-related risk behaviours. These theories and models will not only be used as focal points in understanding the dynamics of health-related behaviours, but later serve as reference points for shaping feasible AIDS intervention programmes for this group of mildly mentally retarded learners.

## **CHAPTER 5**

### **RESEARCH METHODOLOGY**

#### **5.1. INTRODUCTION**

This chapter details:

- The research design used in this study.
- The aim and objectives of the study.
- The sampling strategy utilised and the socio-demographic profile of the sample.
- Instrument development, validity and content.
- The procedure used in conducting the fieldwork, including ethical considerations.
- Statistical treatment of the data.

#### **5.2. RESEARCH DESIGN**

The present study is a cross-sectional survey where questionnaire-based data were gathered in a real life setting. The data lend themselves largely to quantitative analysis, with appropriate statistical techniques being applied to treat the data and to yield findings relevant to the aims of the study.

### **5.3. AIM AND OBJECTIVES**

The overall aim of the study was to determine the knowledge, attitudes and sexual practices of mildly mentally retarded learners in relation to HIV/AIDS, in order to inform the design of school-based HIV/AIDS intervention programmes for this group of learners.

The specific objectives of the study were to:

1. Examine what mildly mentally retarded learners know about HIV/AIDS and what their sources of knowledge are.
2. Examine the attitude and behaviours of MMR adolescents in relation to HIV/AIDS.
3. Examine the extent to which peer norms and self-efficacy factors impact on their attitude and behaviours in relation to HIV/AIDS.

### **5.4. THE POPULATION AND SAMPLE**

The present research is confined to the study of mildly mentally retarded adolescents who are currently engaged in full time studies at a prevocational school. For the purpose of this study, the school will be referred to as NDS. As discussed in chapter 4, adolescents (aged 14-16) comprise the developmentally appropriate group for this study given that for

adolescents, engaging in risk behaviour or unprotected sex is a normal part of exploring and establishing their identity. In addition, the structure of the school system provides a ready-made sampling frame in terms of age, sex, educational level and geographical background. Although there is a move towards inclusive education, information about learners IQ's is almost non-existent in the mainstream school. To obtain the required sample from these schools would have entailed the mammoth and costly task of administering IQ tests to a large number of adolescent learners in order to select an appropriate sample of mildly mentally retarded adolescents. For this reason, a prevocational school for pupils with learning problems was selected, where IQ scores were available for the selection of a sample of mildly mentally retarded learners.

Before describing how the sample was selected, a description of Chatsworth, the suburb in Durban in which the school is situated, will be appropriate. The school was established in 1986 by the Education Department in recognition of the need to fill a gap in the continuum of services required for youngsters with learning problems. It is established in the heart of Chatsworth, a suburb situated approximately 25 km from the city of Durban. Chatsworth was developed as a residential area during the apartheid era, exclusively for Indians of lower socioeconomic status. Since the emergence of democracy in 1994, many Africans and some Coloureds have settled in and around the Chatsworth area. Even today, however the large majority of its inhabitants comprise a working class Indian community.



NDS is a prevocational school for learners who are not academically inclined due to their intellectual and learning difficulties. Approximately 80% of the learners are admitted from special education classes and the remainder are drawn from those who have had a history of failure in the regular stream of education. NDS is a dual-sex day school with a mean age of 15.7 years. English is the first language of the majority of learners and the incidence of behavioural problems in the learners is not thought to be any higher than in normal mainstream schools (Personal Interview, 2001).

The school population is divided into 3 phases viz. orientation, intermediate and senior levels. The school has a principal who is an educational psychologist and a staff complement of 20, made up of 12 males and 8 females. All teachers have a special education diploma. There are 11 classrooms as well as specialist rooms such as an art room, hairdressing room, needlework room, kitchen, motor mechanics, woodwork and panel beating workshops. Courses are offered in woodwork, metalwork, motor mechanics, hairdressing, cookery, needlecraft, shop and office practice and art. The curriculum also includes functional mathematics, functional English, social studies, life orientation and physical education. Sexuality education also forms part of the curriculum but is rarely implemented. After spending 5 years at the school, the learners leave school and find basic employment at chain stores or as assistants in factories and workshops.

Given the general character of the NDS prevocational school and its learner characteristics, the school provides an ideal setting for a study of the knowledge, attitudes

and practices of its learners in relation to HIV/AIDS. The total learner population of NDS is 260, with 120 learners aged 14 -16 years at the school. These learners are in the orientation and intermediate groups.

The research comprised a saturation sample of all the 120 learners. A pilot study was conducted on 16 of these learners who were then omitted from the study, yielding a sample size of 104. Of a total of 104 learners, 14 were excluded from the study, due to these respondents indicating that they had never heard of HIV/AIDS. The research was consequently based on a final sample of 90 learners.

This section has described the characteristics of the learners, the curriculum and length of stay at the school. Given that a saturation sampling strategy was employed for the study, the findings of this survey are generalizable to the population of mildly mentally retarded adolescents at NDS. The socio demographic characteristics of the sample are shown in Table 1, below.

**TABLE 1: Sociodemographic Characteristics of the Sample**

<b>SOCIODEMOGRAPHIC PROFILE OF THE SAMPLE (N = 90)</b>	
	<b>FREQUENCY</b>
<b><u>AGE</u></b>	
14 - 15	67 (74%)
15 - 16	23 (26%)
<b><u>SEX</u></b>	
MALE	69 (77%)
FEMALE	21 (23%)
<b><u>RACE</u></b>	
INDIAN	59 (65%)
AFRICAN	26 (29%)
COLOURED	5 ( 6%)
<b><u>GRADE</u></b>	
ORIENTATION 1	28 (31%)
ORIENTATION 2	37 (41%)
INTERMEDIATE 3	19 (21%)
INTERMEDIATE 4	6 ( 7%)
<b><u>FAMILY STATUS</u></b>	
FOSTER CARE	12 (13%)
SINGLE PARENT FAMILY	27 (30%)
INSTITUTIONAL	6 ( 7%)
DUAL PARENT FAMILY	45 (50%)

## **5.5 DATA COLLECTION INSTRUMENT**

### **5.5.1 Instrument Development Phase**

A questionnaire was developed as the primary data collection instrument. Questionnaire development was informed by a reading of the literature, consultation with identified experts in the fields of research methodology and HIV/AIDS, and from an appraisal of

similar data collection instruments used in relevant empirical studies (MRC and West Virginia AIDS Unit).

Content validity of the questionnaire was established by having it appraised by 2 researchers identified as experts in the field of HIV/AIDS research. The validity testing was useful in:

- assessing the internal consistency of the items constructed
- extracting new content areas that were initially overlooked

A pilot study was conducted at the school by the researcher, who administered the questionnaire to 16 subjects. The questionnaire was administered individually in a classroom. Each questionnaire took approximately 15 minutes to complete. All responses were recorded by the researcher. The 16 completed questionnaires and the responses were then examined, an item analysis was conducted and relevant changes to the questionnaire were made accordingly. Administration of the questionnaire to the study sample commenced a week later.

### **5.5.2 The Questionnaire**

The primary purpose of the questionnaire was to elicit information about the knowledge, attitude and sexual practices of the sample. The issues addressed in the questionnaire were derived from the information gathered in the instrument development phase. In its final form, the questionnaire comprised 3 sections, with a total of 63 items. Of these, 61 were fixed response items and 2 were open-ended items (Refer to Appendix A).

The 3 sections were constructed as follows:

- Section A comprised such biographical data as age, race, sex, grade and family status.
- Section B included statements and questions regarding learners knowledge and awareness regarding HIV/AIDS in the following areas viz. existence, transmission, cure and detection.
- Section C included statements and questions regarding sources of information on HIV/AIDS, personal contact, fear, perceived severity of AIDS, personal susceptibility, prejudices towards people with AIDS, sexual practices, peer norms, self-efficacy, interventions, care and support.

## **5.6. PROCEDURE**

### **5.6.1 Phase 1-Consultation and Ethical Considerations**

Formal consent for conducting the study was obtained from the Department of Education (KwaZulu-Natal) and ethical clearance was obtained from the University of Durban Westville's Ethics Committee (Appendix B). The principal of the school had been consulted and appraised of the purpose of the study and gave formal permission for the study to be conducted at the school. Informed consent was obtained from the parent/guardian of all research participants in the study. In addition, each member of the

sample was informed of the aim and value of the study and each was told that his or her participation was voluntary.

### **5.6.2 Phase 2-Implementation**

All questionnaires were individually administered by the researchers. In recognition of the fact that the reading and literacy skills of subjects might be limited, an interviewer-administered procedure was utilised, where questions were read out by the researcher. This personal interviewer approach allowed the interviewer to explain questions in the instance where learners encountered problems with the meaning of words and questions. Oral responses on all questions were recorded on the questionnaire by the researcher.

The researcher explained the purpose of the research, the inclusion of questions about sexual behaviours, the confidentiality of the study and the right to privacy and voluntary participation. The subjects were also assured that they would not be identified by their individual responses.

## **5.7. DATA ANALYSIS**

Data were coded and a template for data entry onto SPSS (Statistical Package for Social Scientists) was created. Subsequent to data entry, data were "cleaned" prior to data analysis. In analysing the data, frequencies were used to summarise the data and determine the number of correct and incorrect responses. The relationship between selected independent variables and the various scales (fear, prejudice, transmission, etc)

were tested by means of t- Tests, as well as one-way and factorial analysis of variance (ANOVA). Chi square tests of independence were used for item analysis, comprising of cross-tabs of specific independent and dependant variables. In addition, Pearson Correlations were conducted to determine the degree of linear association between scales.

## CHAPTER 6

### RESULTS

#### **6.1 INTRODUCTION**

This chapter presents a statistical analysis of the results obtained in the study. For each of the constructs investigated in the study, descriptive analyses comprising frequency counts, percentages and cross-tabs, are presented, followed by both parametric and non-parametric statistics. These results are presented in both tabular and graphical form as appropriate. Finally, the results of intercorrelations between scales are presented.

#### **6.2. RELIABILITY OF PRIMARY SCALES USED IN THE SURVEY**

**TABLE 2: Cronbach's Alpha Coefficient for KAP Scales (n=90)**

SCALE	Number of Items	Cronbachs Alpha	Mean	Standard Deviation
Transmission of HIV/AIDS	11	.7940	16.43	2.48
Knowledge of Condom Use	3	.5914	5.60	.75
Personal Exposure to HIV/AIDS	2	.6511	3.32	.82
Threat of HIV/AIDS	8	.6674	15.92	2.44
Prejudice regarding HIV/AIDS	3	.4503	3.80	1.40
Peer Norms	6	.4841	7.51	1.85
Self Efficacy	7	.4166	7.84	1.10



The alpha coefficients of reliability for the measures used are represented in Table 2.

Kaplan and Saccuzzo (1989) suggest the following guidelines for the interpretation of

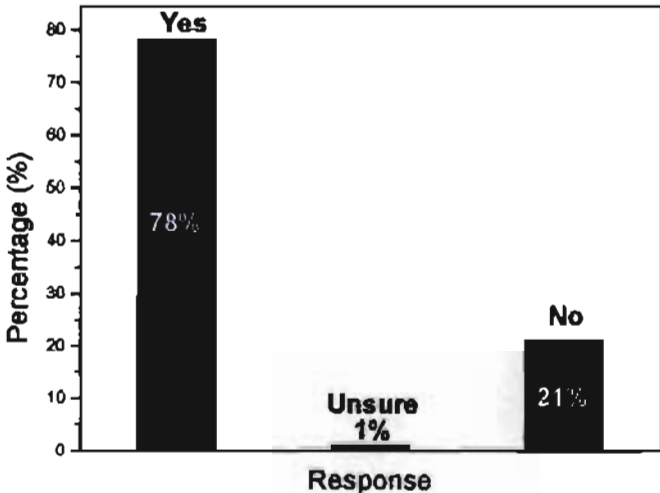
Cronbachs Alpha coefficients:

- scores falling above 0.7 are categorized as good,
- scores between 0.5 to 0.7 are categorized as satisfactory
- scores below 0.5 are categorized as poor.

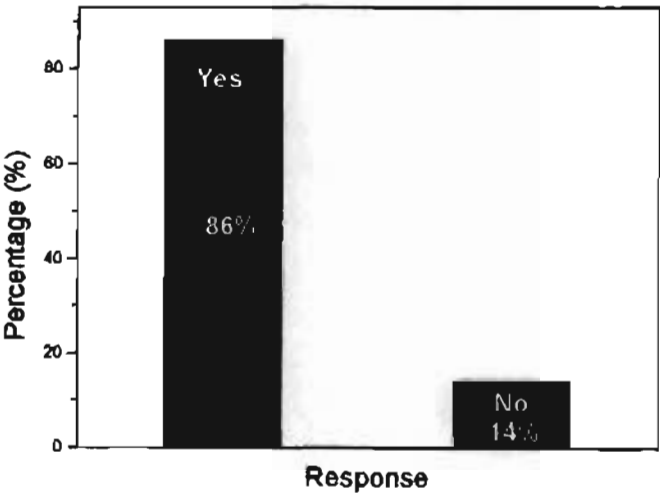
Using the above guidelines, it can be concluded that satisfactory to good internal consistency has been established for 4 of the scales, with alphas ranging from .5914 to .7940 (Table 2). Internal consistency was marginally poor on the remaining 3 scales (.4166 to .4841), with item analysis not producing any significant improvements on the reliability of these scales. Cronbach's alpha coefficients could not be conducted on the remaining scales because in some cases items were not amenable to scaling and in others, very few items comprised the scale.

**6.3. KNOWLEDGE ABOUT HIV/AIDS**

**6.3.1. Existence and Cause of HIV/AIDS and STDS**

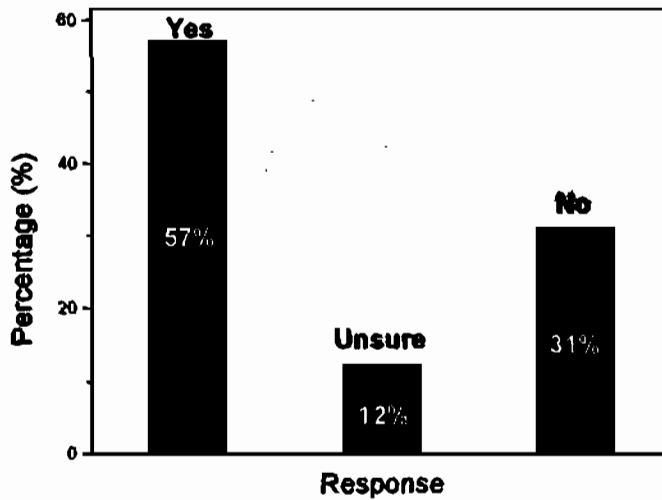


**Figure 1: Knowledge of existence of sexually transmitted diseases (n=90)**



**Figure 2: Knowledge of existence of HIV/AIDS (n=104)**

Note: N=104 includes the 14 adolescents that indicated that they have not heard of HIV/AIDS



**Figure 3: Knowledge of whether HIV causes AIDS (n=90)**

A significant percentage of respondents indicated that they had not heard of sexually transmitted diseases (21%) or were unsure (1%) (Figure 1), with 14% indicating that they had not heard of HIV/AIDS (Figure 2). With regard to the question of whether HIV causes AIDS, 57% indicated that the HIV virus causes AIDS, 12% were uncertain and 31% believed that the HIV virus does not cause AIDS (Figure 3). Thus, over 2 in 5 respondents were not aware that HIV causes AIDS. Item analysis revealed a statistically significant gender difference with regard to the knowledge that HIV causes AIDS ( $\chi^2 = 6.11$ ,  $df. = 2$ ,  $p < 0.05$ ), with significantly more males than females believing that HIV causes AIDS.

### **6.3.2 Transmission of HIV/AIDS**

#### **6.3.2.1 Descriptive Analyses**

Table 3 shows the responses to the knowledge of transmission scale, as well as the percentage of respondents who are poorly informed about the transmission of HIV/AIDS

by rank order. By inspection, knowledge was poorest regarding transmission of HIV/AIDS by mosquito bites (56%), when an infected person coughs on you (53%) and by kissing an infected person (47%). All the respondents correctly indicated that the HIV virus is sexually transmitted and 87% were aware that HIV/AIDS is transmitted by infected needles. It is encouraging to note that respondents were well informed regarding non-transmission by travelling on the same bus/taxi with someone who is infected (97%), holding hands with someone who is infected (84%) and playing with someone who has HIV/AIDS (81%).

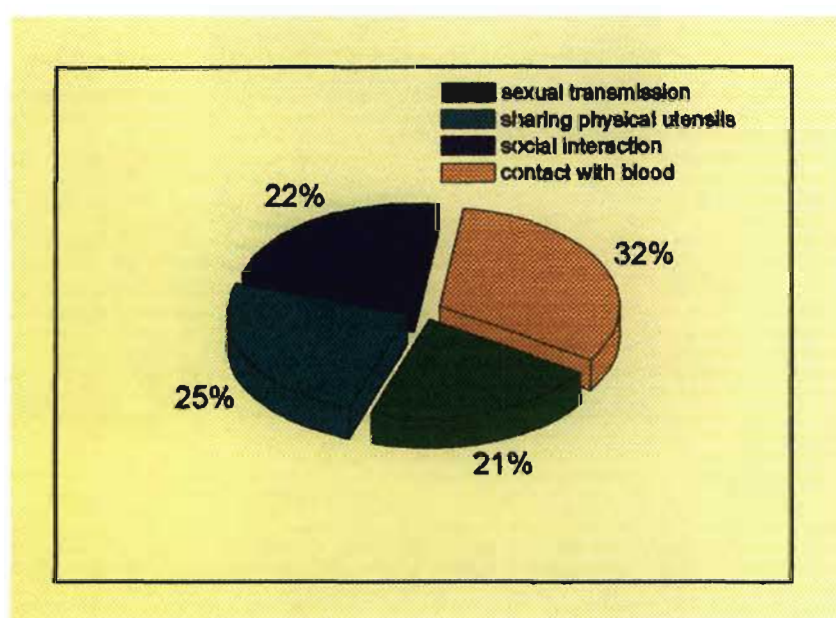
**TABLE 3: Knowledge of Transmission of HIV/AIDS (n=90)**

ITEMS	Response			
	Yes	Unsure	No	0 Poorly Informed
HIV/AIDS is transmitted by mosquito bites	49	7	44	56%
A person can get AIDS if someone with HIV/AIDS coughs on you	43	10	47	53%
By kissing a person who has HIV/AIDS	46	1	53	47%
By sharing a cigarette with someone who has HIV/AIDS	26	2	72	28%
By eating food prepared by someone with HIV/AIDS	24	3	73	27%
By living in the same room house with a person who has HIV/AIDS	21	1	78	22%
By playing with someone who has HIV/AIDS	17	2	81	19%
By holding hands with someone who has HIV/AIDS	16	0	84	16%
By using needles used by a person who is infected by the HIV virus	87	1	12	13%
By travelling on the same bus/taxi with someone who has HIV/AIDS	3	0	97	3%
HIV virus can be transmitted by sexual intercourse	100	0	0	0%

\* The poorly informed category includes the percentage who gave the incorrect responses and those who were unsure.

### 6.3.2.2 Categorical Analyses

The 11 items on the knowledge of transmission scale comprise 4 categories viz., sexual transmission, sharing physical utensils, social interaction and contact with blood. Figure 4 provides a graphic display of the distribution of knowledge of transmission by all 4 categories. Poorest knowledge was in relation to contact with blood (32%), followed by sharing physical utensils (25%). Despite good knowledge that HIV/AIDS can be transmitted through sexual contact (100%), close to half (47%) respondents believed that HIV/AIDS can be transmitted by kissing an infected person and close to 1 in 4 respondents believed that HIV/AIDS could be transmitted by social interaction (22%).



**Figure 4: Percent poorly informed by knowledge category**

### 6.3.2.3 Item Analyses

t- Tests revealed no significant relationship for age ( $t=.19$ ,  $p=.849$ ) and gender ( $t=.90$ ,  $p=.371$ ) by transmission. Analysis of variance for transmission by levels of race ( $F=0.730$ ,  $p=.9296$ ), grade ( $F=.0192$ ,  $p=.9968$ ) and family status ( $F=.3154$ ,  $p=.8142$ ), revealed no significant main or interaction effects.

However, statistical item analysis revealed the following:

- There was a statistically significant difference in wanting to play with an infected person across race ( $\chi^2=5.723$ ,  $d.f.=2$ ,  $p<0.05$ ), with more Indians and Coloureds believing that AIDS can be transmitted by playing with an infected person than Africans. Similarly, significantly more females than males believed that HIV/AIDS can be transmitted by playing with an infected person ( $\chi^2=6.38$ ,  $d.f.=1$ ,  $p<0.05$ ).
- Significantly more respondents in the lower grades than those in the higher grades believed that HIV/AIDS can be transmitted by mosquito bites ( $\chi^2=16.39$ ,  $d.f.=3$ ,  $p<0.05$ ).
- There was a statistically significant gender difference in believing that HIV/AIDS can be transmitted by living in the same room/house with an infected person ( $\chi^2=5.83$ ,  $d.f.=1$ ,  $p<0.05$ ), with more females as compared to males believing this to be the case.

### 6.3.3 Knowledge regarding the Curability of HIV/AIDS

**TABLE 4: Knowledge of Cure (n=90)**

Item	Response %			Poorly Informed
	Yes	unsure	no	
HIV/AIDS can be cured	15	7	78	22%
HIV/AIDS can be cured by a doctor	22	8	70	30%
Traditional/fair/Healer can cure HIV/AIDS	12	7	81	19%
A virgin can cure HIV/AIDS can be cured if he has sex with a virgin	12	8	80	20%

\* Poorly informed category includes the percentage who gave the incorrect response and those who were unsure.

Table 4 shows the responses to the knowledge of cure scale, as well as the percentage of respondents who are poorly informed about the cure of HIV/AIDS. 1 in 4 respondents (22%) reported that HIV/AIDS can be cured. By inspection, knowledge was poorest regarding the curability of HIV/AIDS by a doctor (30%). 20% believed that HIV/AIDS can be cured by having sex with a virgin and slightly fewer believed that a traditional/faith healer can cure HIV/AIDS (19%).

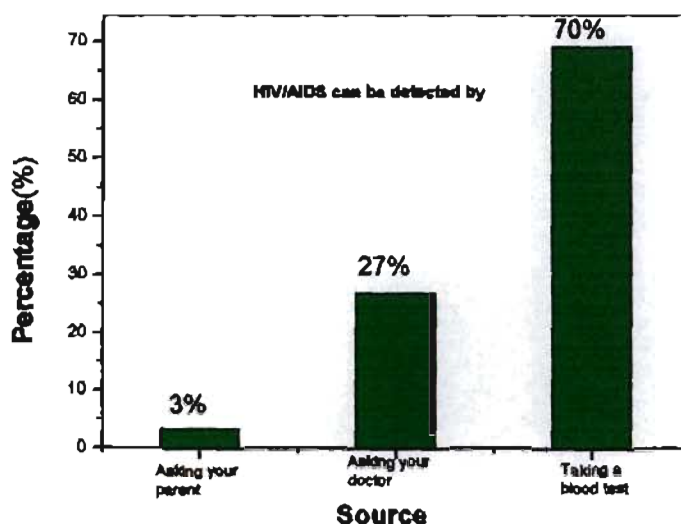
Item analysis revealed the following:

- There was a statistically significant race difference in believing that HIV/AIDS can be cured by having sex with a virgin ( $\chi^2=16.25$ ,  $df=2$ ,  $p< 0.01$ ), with more blacks than Indians and Coloureds believing this to be the case.

- There was a statistically significant gender difference in the belief that HIV/AIDS can be cured by a doctor ( $\chi^2=8.38$ ,  $df. = 2$ ,  $p< 0.05$ ), with more females than males believing that HIV/AIDS can be cured by a doctor.
- There was a statistically significant race difference in believing that traditional/faith healers can cure HIV/AIDS ( $\chi^2=8.89$ ,  $df.=2$ ,  $p<0.05$ ), with a larger number of Blacks than Coloureds and Indians indicating that traditional/faith healers can cure HIV/AIDS.

### **6.3.4 Detection**

#### *6.3.4.1 Means of Detection of HIV/AIDS*

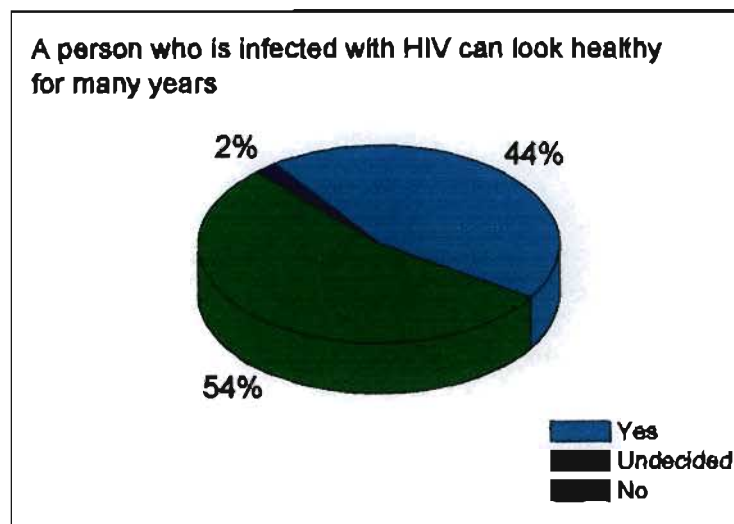


**Figure 5: Means of Detection (n=90)**



Figure 5 shows that respondent's knowledge of means of detection was fairly accurate, where a large number of respondents (70%) correctly believed that HIV/AIDS can be detected by taking a blood test. The remainder of the sample indicated that a doctor should be consulted (27%) and (3%) indicated that parents should be consulted

#### 6.3.4.2 Detection of HIV/AIDS by Physical Appearance



**Figure 6: Detection of HIV/AIDS by Physical Appearance (n=90)**

The question " a person who is infected with HIV can look healthy for many years " was used to determine respondents knowledge of the difference between HIV status and AIDS. 54% of respondents were not aware that a person who is infected with HIV could look healthy for many years.

### **6.3.5. Knowledge of Condom Use**

Table 5 reveals that 89% of respondents have seen a condom and 93% know what a condom is used for. An item analyses revealed statistically significant differences on these 2 items by grade ( $\chi^2=8.991$ ,  $df=3$ ,  $p< 0.05$  and  $\chi^2=9.658$ ,  $df=3$ ,  $p< 0.05$  respectively), with more respondents in the lower grades reporting not having seen a condom or not knowing what a condom was used for. Similarly, significantly more females as compared to males reported not having seen a condom ( $\chi^2=4.472$ ,  $df=1$ ,  $p< 0.05$ ).

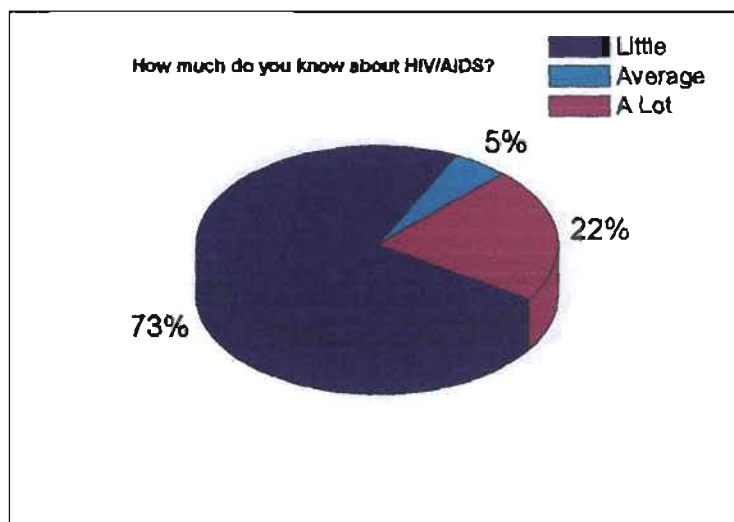
78% of respondents understood the protective role of condoms (Table 5), with significantly more males than females knowing that condoms prevent HIV transmission ( $\chi^2=11.31$ ,  $df=1$ ,  $p< 0.01$ ).

**TABLE 5: Knowledge and Perceptions of Condom Use (n=90)**

ITEM	RESPONSE (%)	
	Yes	No
Have you seen a condom?	89	11
Do you know what a condom is used for?	93	7
Condoms used correctly when having sex can prevent HIV/AIDS	78	12

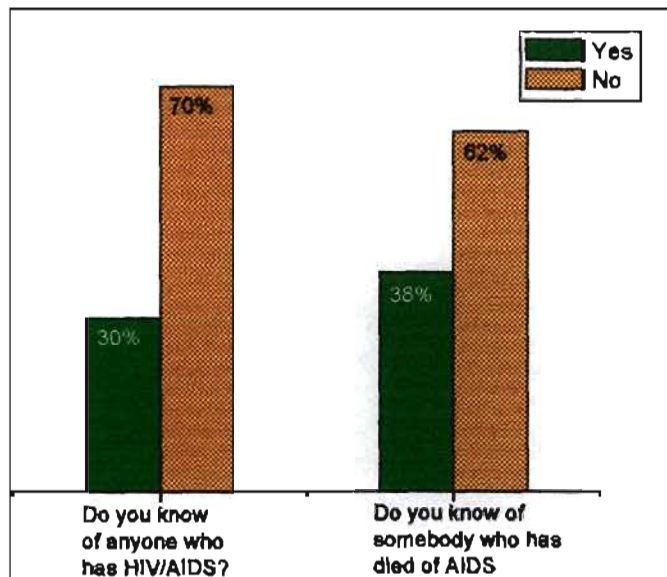
### **6.3.6 Perceived Knowledge of HIV/AIDS**

Figure 7 shows that the majority of respondents (73%) indicated that their knowledge of HIV/AIDS is poor. A chi-square analyses revealed a marginally significant difference in perceived knowledge of AIDS across gender ( $\chi^2 = 4.862$ ,  $df. = 1$ ,  $p = 0.06$ ), with females believing that they were less knowledgeable about HIV/AIDS than males.



**Figure 7: Perceived Knowledge of HIV/AIDS (n = 90)**

## 6.4 PERSONAL EXPOSURE TO HIV/AIDS



**Figure 8: Knowing Persons with HIV/AIDS (n = 90)**

Figure 8 reflects respondents' proximity with people who are infected, including knowing anyone who has HIV/AIDS or someone who has died of AIDS. There seems to be a fair deal of exposure to people with HIV/AIDS with close to 1 in 3 respondents (30%) indicating that they knew someone who has HIV/AIDS and just over 1 in 3 respondents (38%) indicating that they knew someone who had died of AIDS.

Chi-square analyses revealed a statistically significant difference in knowing someone who has HIV/AIDS across grades ( $\chi^2=12.526$ ,  $d.f.=3$ ,  $p<0.01$ ), with fewer respondents in the lower grades reporting that they know of someone who has HIV/AIDS than those in the higher grades. There was also a marginally significant race difference ( $\chi^2=5.252$ ,

$df=2, p= 0.053$ ), with fewer Africans as compared to Indians and Coloureds indicating that they know of someone who has HIV/AIDS.

## **6.5 THREAT**

### **6.5.1. Perception of Risk: Severity and Susceptibility**

#### *6.5.1.1 Descriptive Analysis*

In terms of severity, Table 6 shows that there is a generally high perception that HIV/AIDS is a threat to our society. It is noteworthy that 97% of respondents are aware of the seriousness of HIV/AIDS and 99% are aware that death is a consequence of HIV infection. This would suggest that respondents in general recognise the serious consequences of HIV/AIDS. In terms of susceptibility, just about two thirds of respondents (66%) indicated that they were at risk for HIV infection, one in ten respondents (9%) were unsure and one in four respondents (25%) indicated that they were not at risk for HIV/AIDS. From these findings, it is apparent that there is a much greater sense that HIV/AIDS is a threat to society as a whole than there is a sense of it being a personal threat.

**TABLE 6: Perception of Susceptibility and Severity of Threat of HIV/AIDS (n=90)**

ITEMS	RESPONSE (%)		
	Yes	unsure	No
▪ Severity HIV/AIDS is a serious problem	97	0	3
HIV/AIDS can kill a person	99	0	1
▪ Susceptibility Do you think you could get HIV/AIDS	66	9	25

**6.5.1.2 Item Analysis.**

There was a statistically significant race difference in identifying HIV/AIDS as a serious problem ( $\chi^2=7.64, df=2, p< 0.05$ ), with fewer Africans than Indians and Coloureds indicating that AIDS is a serious problem. Similarly, there was a statistically significant race difference in susceptibility ( $\chi^2=12.165, df=2, p< 0.05$ ), with fewer Africans as compared to Indians and Coloureds indicating that they were susceptible to HIV/AIDS. Gender differences in susceptibility were also noted ( $\chi^2=6.258, df=2, p< 0.05$ ), with more males than females indicating that they were susceptible to HIV/AIDS.

**6.5.2. Fear**

Table 7 explores the extent of respondents fear of contact with HIV infected persons. In response to questions regarding fear about AIDS and HIV infected persons, a significant

minority of respondents reported fear with regard to sharing food with an infected person (17%), using an infected persons pen (17%) and sitting next to an infected person (22%), with a more significant level of fear being reported with regard to playing with an infected person (40%). Respondents appeared to be generally accepting of infected persons, with 72% indicating that they would be friends with an infected person.

t-tests revealed no significant differences for fear by age ( $t = 1.03, p=.308$ ) and sex ( $t=.01, p=.991$ ). Analysis of variance for fear by levels of race ( $F=1.533, p=.2217$ ), grade ( $F=1.141, p=.3374$ ) and family status ( $F=.0192, p=.9968$ ), revealed no significant main or interaction effects.

Item analysis revealed marginally significant race differences in fear of sharing food with an infected person ( $\chi^2=5.557, df=2, p= 0.053$ ) and fear of using a pen used by an infected person ( $\chi^2=5.723, df=2, p= 0.051$ ), with more Africans than Indians and Coloureds being fearful on these 2 items. Item analyses revealed a statistically significant gender difference in willingness to being friends with an infected person ( $\chi^2=3.10, df=1, p< 0.05$ ), with females as compared to males being more fearful of being friends with an infected person.

**TABLE 7: Perception of Fear relating to HIV/AIDS (n=90)**

ITEM	RESPONSE (%)	
	Yes	No
Would you be afraid to play with someone who has HIV/AIDS?	40	60
Would you be afraid to share food with someone who has HIV/AIDS?	17	83
Would you be afraid to use a pen used by someone who has HIV/AIDS?	17	83
Would you be afraid to sit next to someone who has HIV/AIDS?	22	78
Would you be friends with someone who has HIV/AIDS?	72	28

## 6.6 PREJUDICE

Statements in Table 8 were included to assess prejudicial attitudes towards stigmatized groups and infected persons. Analyses showed that only a marginal number of respondents believed (8%) or were unsure (2%) as to whether only blacks are susceptible to HIV/AIDS. With regards to punitive attitudes towards infected persons, 86% felt that children that are infected should not be punished and 80% believed that infected persons do not deserve to die.

t- tests revealed no significant age ( $t=1.03, p>0.05$ ) and sex ( $t=.4823, p>0.05$ ) differences in prejudicial attitudes on this scale. F tests revealed no significant differences in race by prejudice ( $F=.4823, p=.6190$ ), grade by prejudice ( $F=.4390, p.0.05$ ) and family status by prejudice ( $F=.4470, p=.7206$ ), nor did any significant interactions emerge.

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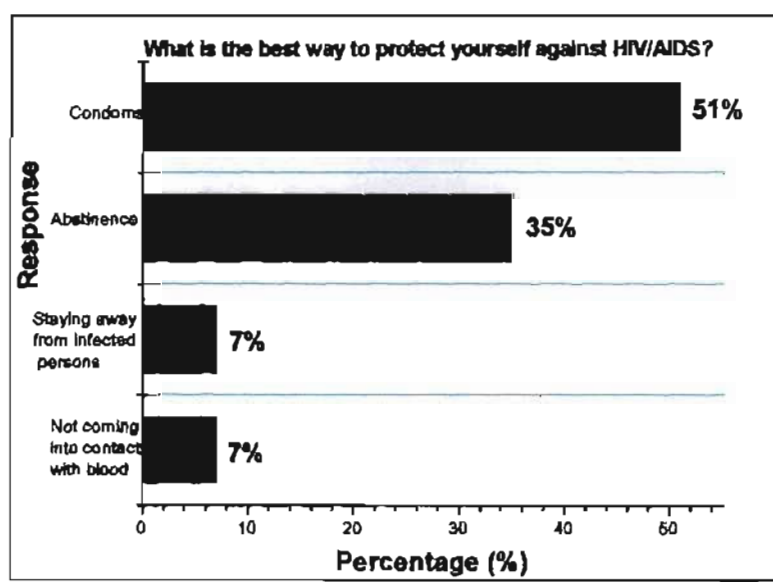


**TABLE 8: Levels of Prejudice (n=90)**

ITEM	RESPONSE (%)			Poorly Informed
	Yes	Unsure	No	
Only Blacks can get HIV/AIDS	8	2	90	10
Parents who find out their children have HIV/AIDS Should punish them	12	2	86	14
A person who has HIV/AIDS deserves to die	20	0	80	20

\* Poorly informed category includes the percentage who gave the incorrect response and those who were unsure

### 6.7 PREVENTION OF HIV/AIDS



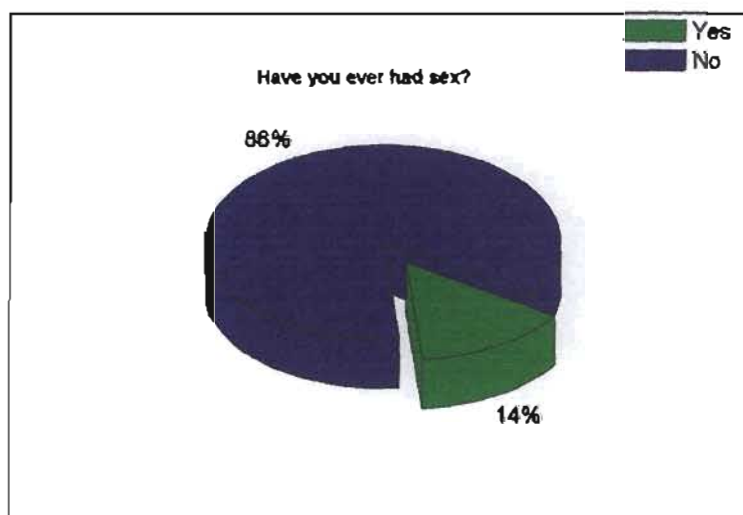
**Figure9: Prevention of HIV/AIDS (n = 90)**

With regard to perceived methods of protecting oneself from HIV infection, the highest number of responses included condom usage (51%), followed by abstinence (35%). A negligible number of respondents indicated staying away from infected persons (7%) and not coming into contact with blood (7%) as viable means of protection.

## 6.8 BEHAVIOURAL PRACTICES

The practice of sexual intercourse, its frequency and condom usage amongst sexually active respondents was investigated.

### 6.8.1 Sexual Activity



**Figure 10: Percentage of Sexually Active Respondents (n=90)**

In determining the number of sexually active respondents, Figure 10 reveals that only 14% of respondents reported being sexually active or having had sexual intercourse

### **6.8.2 Number of sexual partners in the last six months**

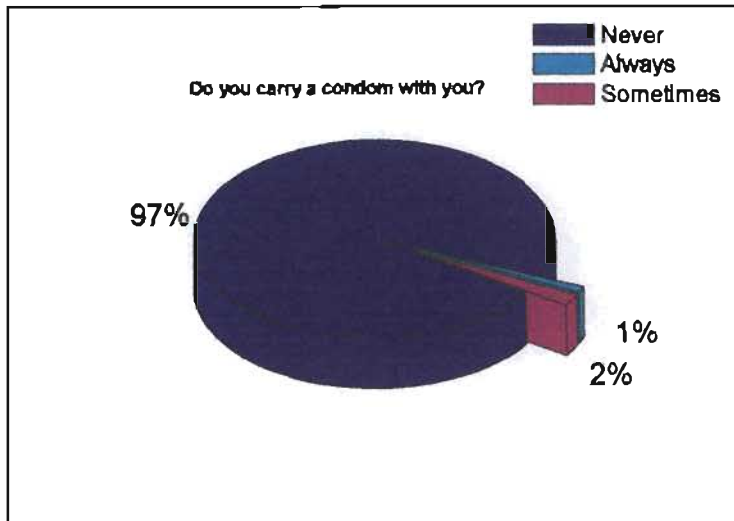
The risk factor of having multiple sex partners is considered in Table 9. Of those who were sexually active, 69% indicated having 1 partner, 15.5% indicated having 2 partners and 15.5% indicated having 3 or more partners.

**TABLE 9: Number of sexual partners in the last 6 months (n=13)**

RESPONSE	FREQUENCY	PERCENTAGE
One	9	69
Two	2	15.5
Three or more	2	15.5

### **6.8.3 Condom usage**

In response to the question, "Do you carry a condom with you", it is worrying to note that only 1% of the respondents indicated always, 2 % indicated sometimes and 97 % indicated never (Figure 11).



**Figure 11: Do you carry a condom with you? (n = 90)**

**TABLE 10: Regularity of Condom use by sexually active respondents**

RESPONSE	FREQUENCY	PERCENTAGE
Always	6	46
Sometimes	5	39
Never	2	15

Table 10 examines the regularity of condom use amongst sexually active respondents. It is worrying that over half (54%) the respondents reported only sometimes or never using condoms.

## 6.9 PEER NORMS

**TABLE 11: Perception of Peer Norms (n=90)**

ITEM	RESPONSE (%)		
	Yes	Unsure	No
Do any of your classmates who are sexually active use condoms?	25	34	41
Do you think boys use condoms with "loose girls" only?	29	21	50
Do you think condoms should not be used with steady partners?	30	10	60
Is it all right for boys to have sex before marriage?	31	0	69
Is it all right for girls to have sex before marriage?	29	0	71
I would not like my friends to know that I use condoms?	46	1	53

This scale examines the extent to which peer norms affect the respondents' opinions about sexual activity and condom use (Table 11). A large majority of respondents (41%) indicated that their friends who are sexually active do not use condoms. Responses to the second question was used to determine whether the respondents shared the common belief that only "loose girls" were capable of transmitting HIV/AIDS. This view was held by close to 1 in 2 learners (50%). Similarly, it was worrying to note that close to 1 in 3 respondents (30%) believed that condoms should not be used with steady partners. Evidence gathered under questions 4 & 5 of the scale tend to suggest that respondents hold conservative attitudes towards pre marital sex, with 69% indicating that pre marital sex is unacceptable for boys and 71% indicating that pre marital sex is unacceptable for girls. In determining whether respondents were comfortable with regard to letting their friends know that they use a condom, just over half the respondents (53%) indicated that they would not like their friends to know that they used condoms.

Item analyses revealed a statistically significant race difference with regard to girls having pre marital sex ( $\chi^2=6.172, df=2, p< 0.05$ ), with more Indians than Coloureds and Africans indicating that girls should not engage in pre marital sex. Further, more females than males reported that they would not want their friends to know that they use condoms ( $\chi^2=13.082, df=2, p< 0.01$ ).

### 6.10 SELF EFFICACY

**TABLE 12: Perception of Levels of Self Efficacy (n=90)**

ITEM	RESPONSE (%)		
	Yes	Unsure	No
Are you embarrassed to speak to a friend about sex?	31	0	69
Are you embarrassed to tell someone that you don't want to have sex?	28	0	72
Boys almost always manage to convince their girlfriends to have sex	63	10	27
Could you tell your girlfriend or boyfriend you don't want to have sex?	82	2	16
Would you find it difficult to ask your sexual partner to use a condom?	33	6	61
Even if you were to ask your sexual partner to use a condom, he/she will disagree	22	37	41
Would you find it embarrassing to use a condom?	20	0	80

This scale was constructed to determine whether respondents are able to assert themselves in negotiating their own sexual involvement and condom use. Respondents demonstrated relatively high levels of self efficacy, with 72% indicating that they were not embarrassed to say "no" to sex, 82 % indicating that they were able to tell their partners they don't want to have sex and 69% indicating that they were not embarrassed

to speak to a friend about sex. With regard to condom usage, 39% indicated that it would not be easy to suggest condom use to their partners and 1 in 5 (20%) indicated that they were embarrassed to use condoms. It was disappointing to note that only 41% of respondents were certain that their sexual partners would agree to use a condom if asked.

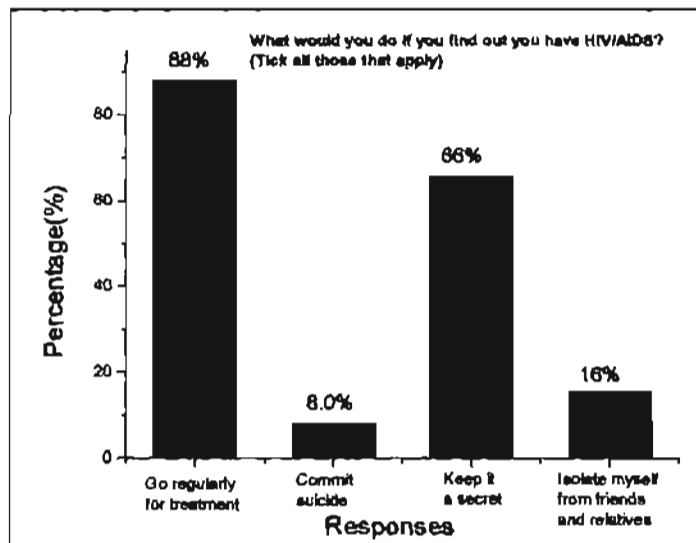
Item analyses revealed the following:

- A statistically significant difference in embarrassment regarding refusal to have sex across age ( $\chi^2=6.19$ ,  $df=1$ ,  $p< 0.05$ ) and grade ( $\chi^2=16.11$ ,  $df=2$ ,  $p< 0.05$ ) was noted, with the younger and lower grade respondents respectively reporting a higher level of embarrassment in refusing to have sex than their peers.
- Significantly more Africans as compared to Indians and Coloureds indicated that their sexual partners will refuse to use condoms ( $\chi^2=11.799$ ,  $df=2$ ,  $p< 0.05$ ). Similar findings were noted across gender ( $\chi^2=10.329$ ,  $df=2$ ,  $p< 0.01$ ), with significantly more females as compared to males reporting that their sexual partners will refuse to use condoms.
- A statistically significant gender difference regarding embarrassment in using a condom was noted ( $\chi^2=10.546$ ,  $df=1$ ,  $p< 0.01$ ), with females indicating higher levels of embarrassment than males in using a condom.

## 6.11 HEALTH SEEKING BEHAVIOURS

### 6.11.1 Care

When asked what respondents would do in the event of finding out they are HIV positive, 88% indicated that they would go regularly for treatment (Figure 12). It is noteworthy that a large number of respondents (66%) indicated that they would keep their HIV status a secret. 16% reported that they would isolate themselves and 8% indicated that they would commit suicide.

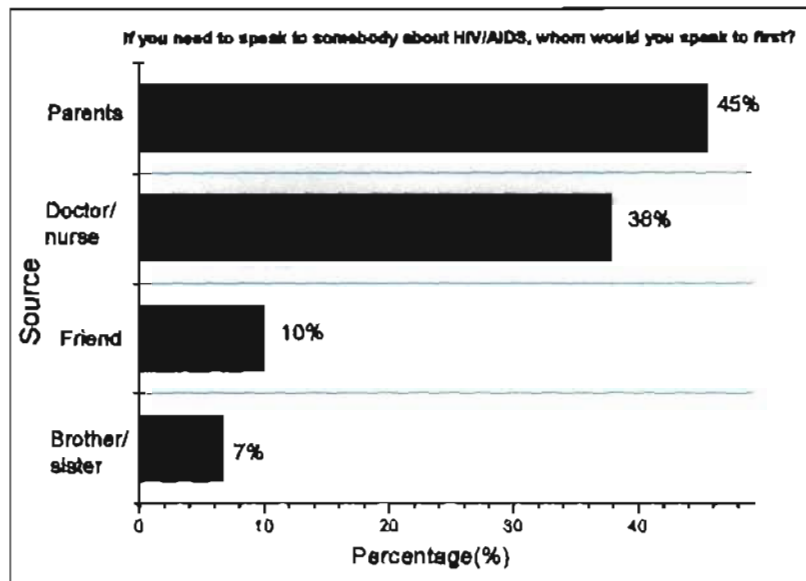


**Figure12: Responses Upon Diagnosis of HIV/AIDS (n=90)**

### 6.11.2 Support

When asked who they would turn to with specific questions about HIV/AIDS, the most common response was parents (45%), followed by medical experts (38%). Peers (10%) and siblings (7%) fared poorly as sources of support (Figure 13).





**Figure 13: Sources of Support (n=90)**

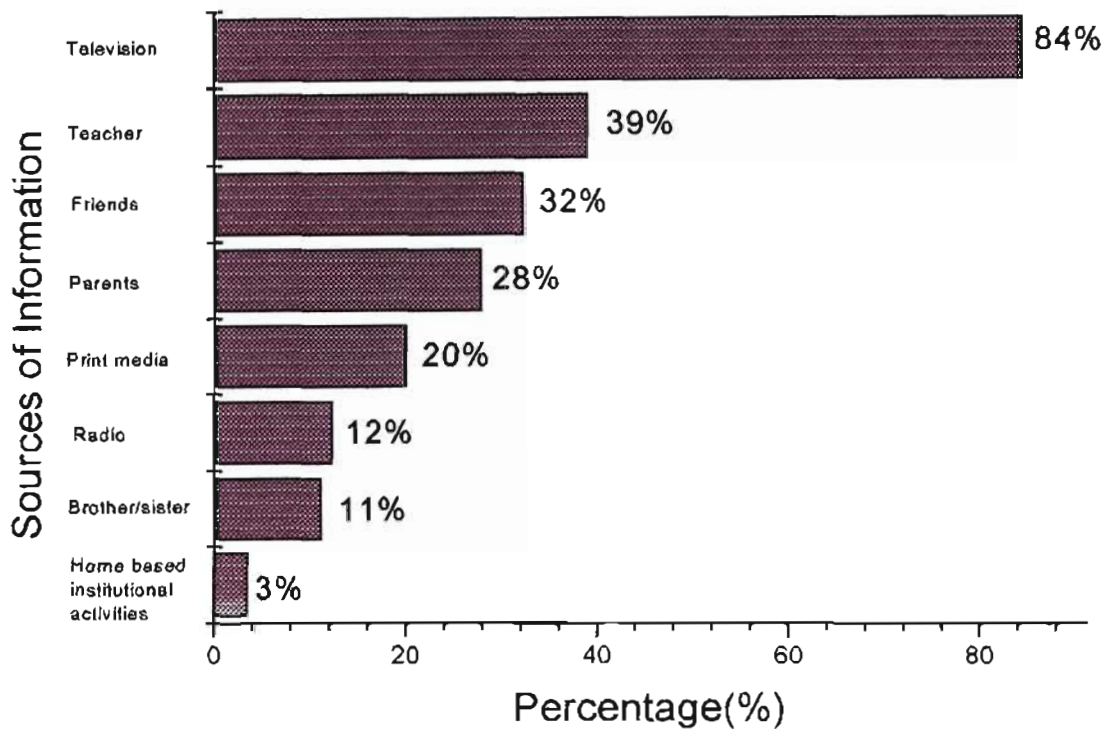
(Results reported as percentage of respondents noting one item only)

## 6.12 EDUCATION

### 6.12.1 Sources of Information

The purpose of this analysis is to provide an indication of respondents' level of exposure to various sources of information (Figure 14). Respondents indicated exposure to a broad range of sources, with the average number of sources of information on HIV/AIDS being 2.8. There are high levels of media exposure, with 84% of respondents having received information about HIV/AIDS via television. Print media (20%) and radio (12%) lagged behind television as sources of information. Teachers (39%) ranked second as an information source, followed by peers (32%). The analysis also revealed that very little

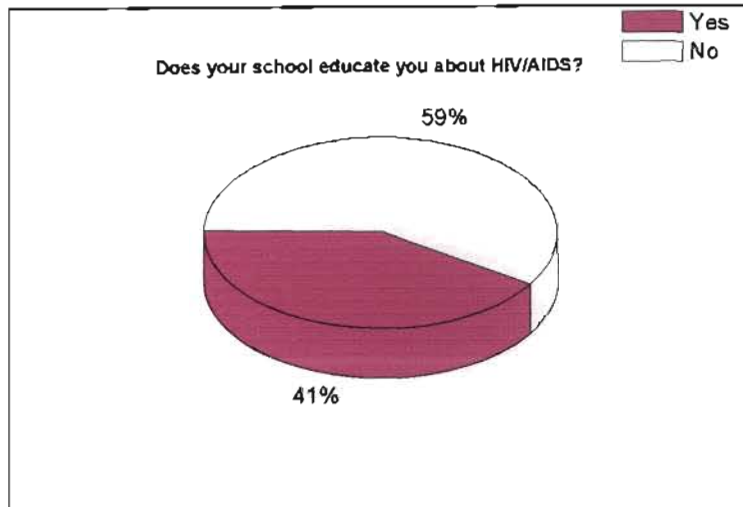
HIV/AIDS exposure takes place within the family, with 28% of the respondents indicating that parents and 11% of respondents indicating that siblings are a source of information regarding HIV/AIDS.



**Figure 14: Sources of Information on HIV/AIDS (n = 90)**

### **6.12.2 Sexuality Education at School**

In determining whether the school plays an active role in educating respondents about sex, 59 % indicated no and 41% indicated yes.



**Figure 15: School Involvement in Sex Education**

**TABLE 13: Suggestions regarding the delivery of HIV/AIDS initiatives at school (n=90)**

(What is the best way for the school to educate you about HIV/AIDS?)

MEDIUM OF DELIVERY	RESPONSE (%)
Medical Experts	31
Teachers	30
AIDS awareness programmes	10
Films	9
Peers	8
Exposure to HIV positive persons	7
Print Media	6

In the above analysis, subjects were asked for their opinions regarding appropriate and suitable HIV/AIDS initiatives at school. A significant percentage of respondents (31%)

favoured talks and programmes run by medical experts. Teachers were ranked second (30%), with peers (8%), exposure to HIV positive persons (7%) and print media (6%) faring relatively poorly.

### 6.13 INFERENTIAL ANALYSIS OF KAP SCALES

**TABLE 14: Inter correlations for KAP measures**

MEASURE	1	2	3	4	5	6	7	8
1. Transmission		.261*						
2. Personal Exposure								
3. Threat			.308**					
4. Prejudice				-.245*				
5. Self Efficacy					.243*			
6. Knowledge of Condom Use						.236*		
7. Cure								.268*
8. Peer Norms								

In order to determine whether variables are significantly related to each other, Pearson Correlations were run (Table 14). Analysis revealed a moderate but significant positive relationship between threat and transmission ( $r = .308$ ,  $p < 0.01$ ), threat and self efficacy ( $r = .243$ ,  $p < 0.05$ ), threat and knowledge of condom use ( $r = .236$ ,  $p < 0.05$ ) and a

\* $p < 0.05$  \*\*  $p < 0.01$

significant negative relationship between threat and prejudice ( $r = -.245, p < 0.05$ ). A significant positive relationship was found between personal exposure and knowledge of transmission ( $r = .261, p < 0.05$ ) and knowledge of cure and peer norms ( $r = .268, p < 0.05$ ).

**TABLE 15: Analysis of variance for personal exposure to HIV/AIDS by sexual activity.**

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	6.428	1	6.428	6.786	.011
Within Groups	83.361	88	.947		

A one way analysis of variance (ANOVA) was conducted with sexual activity as the independent variable and personal exposure to HIV/AIDS as the dependent variable. The findings in Table 15 show that respondents with high levels of personal exposure to HIV/AIDS ( $M = 3.32, SD = .8187$ ) reported not being sexually active ( $M = 6.29, SD = .9186$ ) ( $F=6.786, p < 0.05$ ).

**TABLE 16: Analysis of variance for personal exposure to HIV/AIDS by number of sexual partners in the last six months.**

Source	Sum of Squares	df	Mean Square	F	p
Between Groups	12.270	3	4.090	4.538	.005
Within Groups	77.519	86	.901		

A one-way analysis of variance using the number of sexual partners in the last six months as an independent variable and personal exposure to HIV/AIDS as the dependent variable was conducted (Table 16). This produced a significant main effect ( $F=4.538, p < 0.01$ ) indicating that respondents with high levels of personal exposure to HIV/AIDS ( $M = 3.32, SD = .8187$ ) reported having fewer sexual partners in the last 6 months ( $M = 5.89, SD = 1.05$ ).

**TABLE 17: Analysis of variance of knowledge of condom use by use of a condom for sexually active respondents.**

Source	Sum of Squares	d.f.	Mean Square	F	Sig
Between Groups	6.281	3	2.094	4.156	.008
Within Groups	43.319	86	.504		

A one-way analysis of variance (ANOVA), using knowledge of condom use as an independent variable and use of a condom by sexually active respondents as the dependent variable was conducted (Table 17). This produced a significant main effect indicating that for sexually active respondents, higher levels of knowledge of condom use ( $M = 5.60, SD = .75$ ) was associated with more consistent condom use ( $M = 6.00, SD = .00$ ) ( $F=4.156, p < 0.01$ ).

## 6.14 SUMMARY OF RESULTS

The need for sexuality education for mildly mentally retarded adolescents has become all the more critical and urgent given the advent of HIV/AIDS. The basic aim of this study was to determine the knowledge, attitudes and practices of mildly mentally retarded adolescents in relation to HIV/AIDS. An interviewer-administered questionnaire was administered to a sample of 90 mildly mentally retarded adolescents. The questionnaire comprised scales regarding knowledge, which was further divided into existence and cause, transmission, cure, detection and perceived knowledge of HIV/AIDS. Further, sources of information, exposure to HIV/AIDS, perception of risk, fear, prejudices, sexual practices, peer norms, self - efficacy, care and support with regard to HIV/AIDS were addressed.

The analysis of the data yielded the following:

### ➤ Knowledge of HIV/AIDS

- *Existence and Cause* - While a relatively large percentage of respondents were aware of sexually transmitted diseases (78%) and HIV/AIDS (86%), fewer learners believed that HIV infection results in AIDS (57%).

- *Transmission* - Knowledge of transmission comprised 4 categories.
- ✓ Sexual transmission - While all respondents correctly indicated that HIV/AIDS is sexually transmitted, 46% indicated that HIV/AIDS is also transmitted by kissing an infected person.
- ✓ Sharing physical utensils - close to 1 in 4 respondents believed that HIV/AIDS can be transmitted by sharing physical utensils (22%). 24% of respondents believed that HIV/AIDS can be transmitted by eating food prepared by an infected person and a slightly higher frequency (26%) indicated that HIV/AIDS can be transmitted by sharing a cigarette with an infected person.
- ✓ Social interaction - 1 in 4 respondents were poorly informed regarding transmission by social interaction. 43% of respondents believed that HIV/AIDS can be transmitted when an infected person coughs on you. Respondents were well informed with regard to transmission by playing with an infected person (81%), holding hands with an infected person (84%), travelling on the same bus/taxi with an infected person (97%) and living in the same room/house with an infected person (78%). Significantly more Indian and Coloured than African respondents believed that HIV/AIDS can be transmitted by playing with an infected person. Similarly, significantly more females as compared to males believed that HIV/AIDS can be transmitted by playing with an infected person.



- ✓ Contact with blood – Respondents' knowledge of transmission was poorest with regard to HIV infection by contact with blood. Although 87% of respondents reported that HIV/AIDS can be transmitted by using needles used by an infected person, just under half the sample (49%) indicated that HIV/AIDS can be transmitted by mosquito bites.
  
- *Cure* - The large majority of respondents understood that there is no cure for AIDS (78%). With regard to myths about cure, significantly more Africans than Indians and Coloureds believed that having sex with a virgin can cure HIV/AIDS. A significant association was found between knowledge on cure of HIV/AIDS and peer norms.
  
- *Detection* - Respondents showed high levels of knowledge with regard to ways of detection, with a large majority understanding that HIV/AIDS can be detected by taking a blood test (70%). A large percentage of respondents were not aware that an infected person could have no symptoms (54%).
  
- *Knowledge of Condom Use* - Most respondents were familiar with a condom and its use. Differences in seeing and knowing what a condom is used for were found across grades and gender, with more respondents in the lower grades than the higher grades and more females than males reporting not seeing a condom and not knowing what a condom is used for. Only 1% of respondents indicated that they carry condoms with them. Knowledge of condom use was strongly associated with threat.

- *Perceived Knowledge of HIV/AIDS* - A high percentage of respondents indicated that they had poor knowledge of HIV/AIDS (73%), this being significantly more pertinent to females than males.
  
- **Personal Exposure to HIV/AIDS** – Respondents’ exposure to persons with HIV/AIDS seemed to be minimal. Differences across race were noted, with Africans reporting significantly less exposure to infected persons than Indians and Coloureds. A significant relationship was found between personal exposure and knowledge of transmission.
  
- **Threat**
  - *Perception of Risk* - The large majority of respondents have a generally high perception that HIV/AIDS is a threat to society, with significantly fewer Africans than Indians and Coloureds holding this view. Significantly fewer females than males and fewer Africans than other race groups indicated that they are susceptible to HIV/AIDS. A moderate but significant relationship was found between threat and transmission.
  
  - *Fear* - The majority of respondents showed a relative lack of fear in making contact with HIV infected persons with differences regarding fear being noted across race,

with more Africans than Indians and Coloureds revealing fear of casual contact with infected persons.

- **Prejudice** - In general, respondents appeared to be accepting in their attitudes towards stigmatised groups and persons with HIV/AIDS. There were significant gender differences in refusing to be friends with an infected person, with more females than males refusing to be friends with an infected person. A significant negative relationship was found between prejudice and threat.
  
- **Prevention of HIV/AIDS** - Respondents were generally accurate in knowing that the best ways to protect oneself against HIV/AIDS is through condom usage and abstinence.
  
- **Behavioural Practices (Sexual Activity and Frequency)** - Only 14% of respondents indicated being sexually active, with most of these respondents indicating having only one sexual partner in the last six months. Respondents with high levels of personal exposure reported not being sexually active or having fewer sexual partners in the last 6 months. Condom usage amongst sexually active respondents was disappointing, with only 46% indicating regular condom use. Sexually active respondents with higher levels of knowledge on condom use reported more consistent condom use.

- **Peer Norms** - Peer norms appeared to influence respondents' opinions regarding sexual activity and condom usage. A large percentage of respondents felt that it was unacceptable for boys and girls to engage in pre marital sex, with significantly more Indians than Africans and Coloureds indicating that pre marital sex is unacceptable. Respondents generally felt uncomfortable in letting their friends know that they use condoms.
  
- **Self-Efficacy** - Respondents reported generally high levels of self-efficacy with regard to sexual practices and condom use. However, a fairly large number of respondents indicated that their sexual partners would refuse to use condoms, with a significantly larger number of Africans as compared to other race groups indicating that their sexual partners would refuse to use condoms. Similar differences were noted across gender, with more females as compared to males indicating that their partners would refuse to use a condom. A significant relationship was found between threat and self-efficacy.
  
- **Health Seeking Behaviours (Care and Support)** - Most respondents indicated that if they were HIV positive, they would go regularly for treatment. However, a significant percentage of respondents indicated that they would keep their HIV status a secret. A high percentage of respondents indicated that in the event of needing information about HIV/AIDS, they would turn to their parents or medical practitioners.

➤ **Education**

- *HIV/AIDS Information Exposure* - The primary sources from which the respondents learned about HIV/AIDS included the media (primarily television), teachers and peers. Very little exposure was reported to be taking place in the family, with siblings and parents being rated poorly as sources of information.
  
- *Sexuality Education at School* - The large majority of respondents indicated that their school does not play an active role in educating them about HIV/AIDS. The most preferred sources of school based HIV/AIDS education were medical experts and teachers.

## **CHAPTER 7**

### **DISCUSSION**

#### **7.1 INTRODUCTION**

The present study was designed to determine the knowledge, attitudes and sexual practices of mildly mentally retarded adolescents with regards to HIV/AIDS. In this study, a number of scales were generated to capture the domains that needed to be investigated. The results presented in the previous chapter are discussed here and integrated in relation to the aim and objectives that motivated this study. Past research will be used to either support or refute the findings.

#### **7.2 KNOWLEDGE ABOUT HIV/AIDS**

In dealing with AIDS education, knowledge is a powerful human resource in generating desirable changes in perception and behaviour. A review of the literature on health education indicates that the traditional objective is to impart knowledge to people, under the assumption that this would inevitably lead to a change in behaviour (Mays, Albee & Schneider, 1989). As pointed out earlier in the literature, even though knowledge is considered a doubtful indicator of effective change, accurate knowledge is still considered an important precondition for responsible behaviour. In view of the foregoing, an in-depth knowledge scale was constructed with specific reference to knowledge of

existence, transmission, cure, detection, condom use and perceived personal knowledge about HIV/AIDS.

**7.2.1 Knowledge of Existence** - This subscale investigated the awareness of sexually transmitted diseases and HIV/AIDS and the knowledge that HIV/AIDS is a viral disease. A significant percentage of respondents (21%) indicated that they had not heard of sexually transmitted diseases, but were aware of HIV/AIDS. This finding can be explained in terms of Piaget's (1954) theory of cognitive development, where it is proposed that MMR adolescents do not reach the formal operation stage and therefore lack abstract thinking. Consequently, their inability to identify AIDS as a sexually transmitted disease could be because their ability to generalize is greatly reduced. Alternatively, due to their cognitive difficulties they may have experienced difficulty understanding the term "sexually transmitted disease". From a total of 104 respondents, 14 indicated that they had not heard of HIV/AIDS and were subsequently removed from the study as the questions that followed pertained to HIV/AIDS. This shows that a significant minority of MMR persons are still unaware of the virus. Of the 14 respondents that indicated that they had not heard of HIV/AIDS, 11 respondents were in the 14-15 year old age group as compared to 3 respondents in the 15-16 year old age group. The results of the present study are consistent with that of the National Youth Survey (2000), where it was found that a significant minority of young South Africans are still unaware of the virus and that awareness is particularly low amongst younger people.

With regard to the issue of whether the HIV virus/germ causes AIDS, 12% of respondents were uncertain and 31% believed that the HIV virus does not cause AIDS, a view that was significantly more prevalent among girls than boys. A possible explanation for this finding is that the respondents were unable to differentiate between HIV infection and AIDS and for many subjects HIV and AIDS were synonymous. A further explanation as to why a significant number of respondents were unable to identify AIDS as a viral infection could be attributed to cultural reasons that in many African and Indian societies, there is a belief in disease as an external entity which is often inflicted by God, with no implications of interpersonal physical contact as a causative factor (Tiba, 1990).

Several researchers (e.g. Gallaway, 1999) suggested that with HIV awareness and knowledge being very high throughout South Africa, the attention of researchers and programmers should be shifting away from knowledge dissemination towards preventative action. However, the present study has demonstrated significant gaps in MMR adolescents' knowledge and awareness of HIV/AIDS, suggesting that HIV/AIDS preventative programmes should include a focus on increasing awareness and knowledge of HIV/AIDS among MMR adolescents.

**7.2.2 Knowledge of Transmission** - This subscale comprised statements relating to common methods of transmission, transmission through casual contact and common mythological beliefs about transmission. The scale items comprised 4 categories viz. sexual transmission, sharing physical utensils, social interaction and contact with blood.



- *Sexual Transmission* – While all the respondents correctly indicated that HIV is sexually transmitted, just under half the respondents reported that HIV/AIDS is transmitted by kissing an infected person. Although it was encouraging that respondents were aware of transmission through sexual contact, it is likely that they were simply echoing the brief messages from the media, rather than reflecting a broader understanding of sexual transmission patterns and mechanisms.
  
- *Sharing Physical Utensils* – Even though medical evidence shows that HIV/AIDS cannot be transmitted by casual contact with infected persons, 25% of the respondents were poorly informed about transmission by sharing physical utensils (25%) and 27% eating food prepared by an infected person. MMR adolescents may hold such erroneous beliefs, as they are more likely than other adolescents to believe myths and misinformation as a result of difficulties in distinguishing between fact and fiction.
  
- *Social Interaction* - Close to 1 in 4 respondents believed that HIV/AIDS could be transmitted by social interaction. Over half (53%) of the respondents believed that a person can get HIV/AIDS if an infected person coughs on someone. It is possible that such erroneous beliefs have stemmed from information regarding precautions when handling bodily fluids. A significant minority (22%) believed that HIV/AIDS can be transmitted by living in the same room/house with an infected person and 19% indicated that HIV/AIDS can be transmitted by playing with an infected person. Many respondents qualified this statement by stating that they could become infected if scratched or bitten by an infected playmate. Further, a statistically significant

difference in wanting to play with an infected person across race was noted, with more Indians and Coloureds than Africans believing that HIV/AIDS can be transmitted by playing with an infected person. Similarly, significantly more females than males believed that HIV/AIDS can be transmitted by playing with an infected person.

- *Contact with Blood* - Poorest knowledge was in relation to contact with blood. Over half (56%) of the respondents believed that HIV/AIDS can be transmitted by mosquito bites. Significantly more respondents in the lower grades than in the higher grades believed this to be the case. The majority of respondents (87%) had good knowledge regarding the transmission of HIV/AIDS through infected needles. This may be attributed to widespread media coverage regarding transmission of HIV/AIDS through infected needles.

The results of this scale suggest that media and public information in the area of transmission by casual contact has not been entirely effective. From the above discussion it appears that many MMR adolescents have critical gaps and erroneous beliefs regarding transmission. Of particular significance are erroneous beliefs regarding transmission by contact with blood and social interaction. Therefore an effective programme should focus not only on providing information but also on unlearning misinformation. The present study showed that respondents with high levels of knowledge of transmission viewed HIV/AIDS as a threat, suggesting that an increase in knowledge could have a significant impact on increasing MMR adolescents' perception of risk. Furthermore, the findings of

the study revealed that personal exposure to infected persons was strongly associated with knowledge of transmission, suggesting that awareness programmes should include exposure to infected persons in an attempt to increase awareness of the disease and at a broader level to sensitize respondents to HIV/AIDS issues.

**7.2.3 Knowledge of Cure** - AIDS is a fatal disease for which there is no known cure, nor is there any preventative vaccine known to the medical world (WHO, 1998). Hence the only way to avoid the risk of infection is to avoid exposure to it. As long as people believe that AIDS can be cured, they will be less likely to change behaviours that place them at risk for HIV infection. This subscale focuses on the role of medical and traditional healers in the cure for HIV/AIDS, common mythological beliefs about ways in which HIV/AIDS can be cured, and the condom as a means of protection.

Although a large majority (78%) of respondents believed that HIV/AIDS cannot be cured, 22% believed or were unsure as to whether AIDS could be cured. With little HIV/AIDS education taking place at school, respondents may not have received the information that there is no cure for HIV/AIDS. Alternatively, there has been widespread publicity regarding the South African AIDS Vaccine initiative and the debate surrounding the usefulness of anti retroviral drugs in reducing HIV transmission and increasing the quality of life of infected persons. This information may not only be difficult to understand but also confusing for MMR adolescents, as a result of which respondents may believe that a cure for HIV/AIDS exists.

22% of respondents believed that a doctor can cure HIV/AIDS and 7% were unsure. This could be once again attributed to a lack of information, or to a generalised perception of the doctor as the person who normally cures the ill. A significantly larger number of females as compared to males believed that a doctor could cure HIV/AIDS. Close to 1 in 7 respondents believed that a traditional/faith healer can cure HIV/AIDS. A possible explanation for this has been proposed by Bodibe (1985), who explains that a traditional/faith healer is seen as a resource person who is widely used and accepted by some communities as an interpreter of what constitutes health and illness, more so in the African context. Therefore, it is not surprising that a marginally significant difference in believing that a traditional/faith healer can cure HIV/AIDS across race was found, with more Africans than other race groups believing this to be the case.

McKerrow (1997) has outlined theories linking sexual abuse and HIV/AIDS. One of the theories proposed was the "prevention theory", which is based on the assumption that all sexually active people are likely to be infected and in order to be "safe", one had to choose a partner who was not sexually active. As a result the statement "A person who has AIDS can be cured if he has sex with a virgin" was included to determine whether respondents were influenced by such views. 20% of the respondents endorsed this statement. This finding is consistent with the view that when MMR persons function in the mainstream environment, they tend to be influenced by prevailing societal views and misconceptions. In this regard, the influence of peer norms is particularly significant, especially given the significant association between peer norms and knowledge of cure in this study. Differences in believing that AIDS can be cured by having sex with a virgin

was found across the 3 race groups, with significantly more Africans than Indians and Coloureds believing that HIV/AIDS can be cured by having sex with a virgin.

Although the results of this scale evidence a high level of awareness that AIDS is incurable, some youth erroneously believe that a cure for AIDS exists, be it a doctor, a traditional healer or having sex with a virgin. These misconceptions could have terrible consequences for MMR adolescents because they would be less likely to protect themselves from HIV infection in the belief that infection is temporary. A further and obvious concern is that these misconceptions could also lead to higher rates of HIV transmission if young girls are exposed in an attempt to "cure" an infected individual.

**7.2.4 Knowledge of Detection** - This subscale comprised items concerning methods of detection and the knowledge that a person with HIV may not be symptomatic. Respondents' knowledge of means of detection was high, with a large number of respondents (70%) correctly indicating that HIV/AIDS could be detected by taking a blood test or consulting a doctor (27%), with a further 3 % indicating that parents should be consulted if one needs to find out they have HIV/AIDS. While respondents were presented with other options, such as asking a friend and seeing a traditional healer, none of the respondents in the sample chose these options as a means of detection.

Although the large majority of respondents indicated that HIV/AIDS could be detected by taking a blood test, it is unclear whether they were simply echoing the brief messages in the media or whether they reflected a true understanding of a viral infection that can be detected in the blood. The media often proposes that if a person has questions or doubts

about HIV/AIDS, they should consult a doctor for further information. It is possible that the 27% of respondents that indicated that a doctor could detect HIV/AIDS are simply reflecting this message propagated by the media.

Respondents were asked whether an infected person could look healthy for many years. This question was included because of the common myth that one can tell if someone is infected by his or her appearance and to determine respondents' knowledge of the difference between HIV positivity and having AIDS. Over half of the sample (54%) were unaware that an infected person could have no symptoms and look healthy for many years. This knowledge deficit might be due to such information being complex and confusing and even more difficult to understand when passed through the media, where publications are not tailored to MMR adolescents' intellectual level. Such misinformation may have serious implications for persons with low intellectual abilities and could dangerously place them at risk for HIV infection.

**7.2.5 Knowledge of Condom Use** - Considering that condom use is a particularly important component of safe sex, respondents were asked questions regarding familiarity with condoms and opinions about condom usage. 89% of respondents indicated that they had seen a condom. The nature of the question did not permit inquiry into the mode of exposure, such as television and personal and tangible exposure. Across grades, there was a statistically significant difference, with more subjects in the lower grades stating that they had not seen a condom. This could be due to their younger age and consequently their lack of experience in matters of sex. There was also a significant gender difference

in seeing a condom, with fewer females than males having seen a condom, which could be because the condom is usually considered a male method of contraception and females run the risk of embarrassment in inquiring about a condom.

In investigating knowledge of condom use, 93% indicated that they knew what a condom was used for. More respondents were aware of what a condom was used for than whether they had seen a condom. It was particularly disturbing that there was a statistically significant difference in knowing what a condom is used for across grades, with the lower grade subjects having less knowledge about condom use than the higher grade subjects. This finding once again strengthens the argument that AIDS education should begin at primary school.

Just over 3 in 4 subjects (78%) acknowledged that if condoms were used correctly during sex, they would prevent the transmission of HIV/AIDS. This finding could be as a result of the large number of campaigns on the use of condoms in practicing safe sex. Significantly more males than females believed that the proper use of a condom can prevent HIV transmission, possibly related again to the perception of the condom as a male method of contraception.

The findings of this scale have important implications for generating developmentally appropriate preventative messages targeted to the needs of the population being addressed, i.e. the messages must correspond to the conceptual level of the learner and take into account a child's knowledge within the framework of his or her cognitive

processes. Respondents who viewed HIV/AIDS as a threat were found to be more knowledgeable about the use of a condom in preventing HIV transmission. Therefore, in an effort to increase condom usage, HIV/AIDS awareness programmes should emphasise both severity and personal susceptibility to the disease.

**7.2.6 Perceived Knowledge** - This subscale in the knowledge scale was included to gauge subjects' perceived personal knowledge about HIV/AIDS. A remarkable 5 in 6 (83%) respondents indicated that their knowledge of HIV/AIDS was poor. This may be due to a combination of factors, including poor understanding of the broader concept of sexuality, the lack of sex education at school and impairments in cognitive skills, which could lead to misinformation and confusion and the inability to obtain information from written materials. In any event, this remarkable insight and admission by respondents attests to the need to include a significant focus on knowledge of HIV/AIDS in school-based HIV/AIDS education programmes.

### **7.3 PERSONAL EXPOSURE TO HIV/AIDS**

This scale was constructed to determine whether respondents had been in close proximity to people who are infected, including knowing someone who has HIV/AIDS or someone who has died of HIV/AIDS. This index is useful because there is a wealth of evidence suggesting that personal contact with those directly affected by HIV/AIDS is a powerful catalyst in bringing about awareness and change in both prevention practices and care (DoH, 1998). The results indicate a fairly high level of exposure to people with



HIV/AIDS, with 1 in 3 respondents indicating that they knew someone who has HIV/AIDS. Of these, the majority indicated that the infected person was a family member. Three respondents reported that their parents were HIV positive and two indicated that a learner at school was HIV positive. Due to the nature of the question, it was not possible to explore why these respondents thought that these learners were infected.

Just over 1 in 3 respondents indicated that they knew of someone who had died of HIV/AIDS. It was not possible to determine whether they knew these people personally or whether they became aware through the media. A possible reason as to why a large number of respondents (62%) reported not knowing of anyone who has died of HIV/AIDS could be because when people are infected, they die as a result of a number of opportunistic infections, as a result of which people do not consider these deaths as AIDS related but due to some other illness.

## **7.4 THREAT**

### **7.4.1 Severity and Susceptibility**

This scale was designed to assess constructs central to the Health Belief Model (Janz & Becker, 1984). Threat appraisal, as outlined by the Health Belief Model involves the consideration of both the individual's perceived susceptibility to an illness and its anticipated severity. Threat appraisal has been shown to be strongly related to a number of health behaviours, including adherence with TB treatment regimens (Mays et al, 1989) and risk avoidance with regard to sexual behaviour (Jacobs et al, 1989).

The findings indicate that HIV risk awareness is generally high among this group of learners. There is a generally high perception that HIV is a threat to society, with 97% of respondents indicating that HIV/AIDS is a serious problem. This finding is in keeping with the National Youth Survey (2000), where adolescents ranked HIV/AIDS as one of the major concerns. Knowledge about the severity of HIV/AIDS was found to be adequate, with 99% indicating that HIV/AIDS can kill a person. It is not clear whether respondents' knowledge of the consequences of AIDS is merely a repetition of what they have heard or whether they truly understand the connection between disease and death.

With regard to personal susceptibility, just over two thirds of respondents reported that they were susceptible to HIV/AIDS. It is noteworthy that the large majority of respondents were aware that AIDS is not a disease affecting people in certain groups only but rather a disease that is indiscriminate. However, many respondents qualified their responses by stating that the possibility of infection is not only through sexual contact but through a cut or incidental contact with the blood of an infected person. 1 in 4 respondents indicated that they were not susceptible to HIV/AIDS, possibly because they do not have a good understanding of the disease or because of the general myth commonly held by teenagers that they are invulnerable to AIDS (Hein, 1992).

There is also a much greater sense that HIV/AIDS is a threat to society as a whole than there is a sense of it being a personal threat. This finding is consistent with the "Theory of Reasoned Action", that people often mentally distance themselves from negative

outcomes by perceiving that bad things happen primarily to others and that they are personally safe from adverse health outcomes (Weinstein, 1987).

There was also a statistically significant race difference in identifying HIV/AIDS as a serious problem, with fewer Africans reporting that HIV/AIDS is a serious problem. Similarly, a significant race difference in susceptibility was found, with fewer Africans than Indians and Coloureds indicating that they were susceptible to HIV/AIDS. Gender differences in susceptibility to HIV/AIDS were noted, with significantly more males than females indicating that they were susceptible to HIV/AIDS. Females (DNHPD, 1995) and heterosexual Africans (Shilts, 1987) in South Africa are considered to be high - risk groups, therefore according to the Health Belief Model and the Theory of Reasoned Action, females and Africans would be less likely to report that they are susceptible to HIV infection in an attempt to mentally distance themselves from being associated with HIV/AIDS. Therefore risk should not only be viewed as an individual judgement but also as a social and cultural construct.

#### **7.4.2 Fear**

The main emotional reaction associated with HIV/AIDS is fear viz. fear of contracting the disease and fear of rejection if one has the disease. In addition, fear plays an important role in determining prejudices and the behaviour of individuals. This scale explores the extent of respondents' fear in making contact with infected persons. A significantly large percentage (40%) reported fear of playing with an infected person. 22% of respondents indicated that they were afraid to sit next to an infected person, 17%

of respondents indicated that they were afraid to share food with someone who has HIV/AIDS and a similar number indicated that they were afraid to use a pen used by an infected person. The results of this analysis show that many respondents have unfounded fears regarding casual contact with infected persons, strengthening the argument that ignorance promotes fear and implying that campaigns should focus on unfounded fear and myths surrounding casual contact.

Item analysis revealed significant race differences in fear of sharing food with an infected person and fear of using a pen used by an infected person with more Africans than Indians and Coloureds revealing these fears. These findings could be explained in terms of Vygotsky's (1934) socio-cultural theory, where differences in fear levels might reflect differences in social experience and cultural beliefs. It is not clear from this analysis whether fear promotes ignorance or whether ignorance promotes fear.

Fear appeals have been viewed as effective health promotion strategies. One explanation for their effectiveness is the drive explanation, which assumes that fear arousing content produces a drive (viz. fear and anxiety) about the negative consequences in engaging in a certain behaviour. Research by Janis and Feshbach (1953) produced a "resistance" explanation within the category of drive explanations. They found that low fear messages led to less anxiety as compared to high fear messages which triggered defensive avoidance behaviours. The resistance version of the drive explanation therefore posits that excessively high levels of fear lead to an increase in denial, resulting in a paradoxical non-compliance with message recommendations. In keeping with this explanation, public

health education efforts for MMR adolescents should aim at decreasing rather than increasing fear, whilst emphasizing accurate information, in an attempt to decrease denial and thereby create conditions that are conducive to positive behaviour change.

## **7.5 PREJUDICE**

Any attempt to understand HIV/AIDS without considering the attitudes that lead to the stigmatization and victimization of people with HIV/AIDS would be incomplete. Therefore, statements in this scale were included to assess prejudicial attitudes towards stigmatized groups and infected persons. The connotations engendered by a disease being transmitted sexually have led to blacks being blamed for the spread of the disease in Southern Africa (Shilts, 1987). To the item "Only blacks are susceptible to HIV infection", the majority of respondents (90%) indicated no. The findings of this study are noteworthy in that the majority of respondents were aware that AIDS is not a disease affecting people in certain groups only but that people in all race groups could contract HIV/AIDS.

The question of personal blame has been important and has been a central construct in molding attitudes towards people living with HIV/AIDS (Barnett & Blaiki, 1992). Eighty six percent of respondents indicated that parents should not punish infected children. A possible explanation for this is that children are seen as innocent and helpless and not personally to blame for disease transmission. In determining whether respondents believed that there was a justification for punishment of infected persons, 80% of

respondents felt that an infected person does not deserve to die. Their compassionate attitudes could be as a result of a reasonable number of respondents having contact with infected persons. The 20% of respondents that indicated that an infected person deserves to die could merely be a reflection of the underlying attitudes and prejudices in society, stemming from fear and ignorance. Alternatively, these may be learned responses.

The present study revealed that respondents with high levels of prejudice were less inclined to view HIV/AIDS as a threat. This is not surprising considering that respondents who hold prejudicial attitudes would not want to be associated with the disease possibly because of the negative connotations and stigma attached to HIV/AIDS. This underscores the urgent need to ameliorate negative attitudes and prejudice among MMR adolescents, in an effort to increase perceptions of threat and thereby decrease sexual risk behaviours.

## **7.6 PREVENTION OF HIV/AIDS**

AIDS remains largely a preventable disease. In order to develop an understanding of respondents perceptions of practices which directly or indirectly affect the risk of HIV infection, an open question was posed where respondents were asked what they thought was the best way to protect themselves against HIV/AIDS. The most popular protective strategy was condom usage (51%), followed by abstinence (35%). A possible reason as to why the large majority of respondents were familiar with the above responses could be because of the widely publicised initiatives by the Department of Health (1991) outlining

the ABC code of sexual behaviour. The ABC code of behaviour has assumed widespread coverage on television, billboards and printed materials. Given MMR adolescents' cognitive limitations, it is possible that their understanding of preventative practices is restricted to rote recitation rather than a more internalised conceptualisation of prevention.

This argument is vindicated by the finding that none of the respondents indicated that a long-term relationship with one mutually faithful, uninfected partner could reduce the risk of HIV transmission. This could be due to respondents not being involved in serious relationships or a failure to understand the risk of multiple partners in the transmission of HIV/AIDS. A negligible number (7%) of respondents indicated that HIV/AIDS could be prevented by staying away from infected persons and not coming into contact with the blood of another person (7%). These findings have implications for the development of HIV/AIDS programmes where certain risk reduction behaviours like "being faithful" need to be explained and reinforced and myths and misinformation surrounding HIV transmission need to be dispelled.

## **7.7 BEHAVIOURAL PRACTICES**

### **7.7.1 Sexual Activity and Frequency**

Current behavioural practices are extremely crucial in considering ways to promote HIV prevention practices. The practice and frequency of sexual intercourse, and condom usage among sexually active respondents were investigated.

*7.7.1.1 Sexual Activity* - Only 14 % of respondents reported being sexually active or having had sexual intercourse. This finding is not in keeping with other surveys (Buga et al, 1996 and National Youth Survey, 2000), where an increasing number of young South Africans were found to be sexually active (60% and 30% respectively). Although the findings from the present study show that a significant minority of MMR adolescents are sexually active as compared to non retarded adolescents, the data is consistent with reports documenting that persons with mental retardation can be sexually active (e.g. Timmers et al, 1981). It was interesting that an item analysis did not reveal gender differences in being sexually active. This finding is in contradiction to studies (Buga et al, 1996) where more males than females were found to be sexually experienced by the time they were 15 to 16 years of age. Personal exposure to infected persons produced significant main effects on sexual activity, where respondents with high levels of personal exposure reported not being sexually active. The choice of abstaining from sex could be related to fear of contracting a disease that is generally perceived to be sexually transmitted.

Several respondents appeared to be embarrassed and anxious when asked whether they were sexually active, probably because they have learned that it is not proper to talk about sex. Additionally, interviewer effects could also have confounded the results. Therefore, it is reasonable to assume that the results may not be a true reflection of the number of sexually active respondents, with a larger number of respondents than reported being sexually active.



The question "Have you ever had sex?" was intended to capture trends, which occur within relationships, and not to evoke issues regarding "forced sex". However, two of the respondents reported that their first sexual experience was as a result of sexual abuse by a parent<sup>1</sup>. As is being more commonly acknowledged (e.g. Sobsey et al, 1995), sexual abuse is a potential threat to this population and it represents an additional source of risk for HIV infection. The data from this study is therefore consistent with other studies documenting that persons with mental retardation can be sexually active and experience sexual abuse.

*7.7.1.2 Number of Sexual Partners in the last 6 months* - The risk factor of having multiple sex partners was considered by inquiring about the number of sexual partners respondents had had in the last 6 months. Of these, 69% reported having one sexual partner, 15.5% reported having 2 partners and 15.5% reported having more than 3 partners. Unfortunately the data obtained does not indicate the age of first sexual intercourse and for future research it would be advisable to include questions relating to this. Statistical analysis revealed no significant age and grade differences in the number of sexual partners in the last 6 months.

In the present study the large majority of respondents reported having one sexual partner. This could be explained in terms of their sexual activity being of recent onset. The

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<sup>1</sup> On probing, both respondents reported that they had brought the issue of their abuse to the attention of the relevant authorities (teacher/principal) and both had received social work intervention and counselling. This was corroborated by the principal of the school. In addition, the researcher offered both the respondents as well as the principal her services with regard to any supportive counselling that might be required, under the service of her supervisor. Finally, the principal was assured that the confidentiality of these two respondents would be maintained in this research and any publications that may emanate herefrom.

respondents who reported having more than 1 sexual partner could have had an earlier sexual onset, as a result of which they are inclined to have more sexual partners. A further explanation for adolescents having multiple sexual partners could be due to the adolescent stage being characterized by sexual experimentation with different persons (Erikson, 1963).

Statistical analysis showed that respondents with high levels of personal exposure to HIV/AIDS reported having fewer sexual partners in the last 6 months. The results of this study thus has important implications for developmental prevention programmes, where exposure of adolescents to infected persons could be used as one means of encouraging a reduction in the number of sexual partners.

### **7.7.2 Condom Usage**

*7.7.2.1 Carrying a Condom* - The availability of a condom to respondents was explored. All respondents, irrespective of whether or not they were sexually active, were asked whether they carried condoms with them. It was worrying to note that only 1% of respondents indicated that they always carry condoms, 2% indicated sometimes and 97 % reported never carrying a condom with them. The findings of this study are similar to the NPPHCN (1995) study, where it was found that although a large majority of students in the study knew that condoms prevent AIDS transmission, they did not carry condoms. This demonstrates that knowledge about health risks and preventative health behaviours is not in itself sufficient to produce changes in risk behaviour.

The nature of the study did not permit inquiry into the reasons as to why most respondents did not carry condoms with them. However, this seems to be a crucial issue which should be explored in future research. A possible reason as to why the large majority of respondents reported not carrying a condom could be because many respondents are not sexually active and therefore do not see the need to carry a condom. Other reasons could be lack of availability, as well as running the risk of embarrassment and being accused of immorality in the event of being found with a condom, especially within the school context.

*7.7.2.2 Regularity of Condom Use by Sexually Active Respondents* - The use of a condom by sexually active respondents was explored. The regularity of condom use amongst sexually active respondents was disappointingly low, with only 46% indicating regular condom use. This finding is consistent with that of Abdool Karim, Soldan and Zondi (1995), who found that among adolescents in KwaZulu Natal, sexual relations were typified by a lack of condom use. Reasons for low condom use were not elicited. Given that individual behaviour depends on various personal and environmental conditions, the reasons for irregular condom use may not lie in the lack of knowledge or negative attitudes towards condoms but also in the lack of availability of condoms or lack of skills in how to use condoms. A significant relationship was found between knowledge of condom use and regularity of condom use suggesting that an increase in knowledge levels can lead to preventative action. Further, it is instructive to note that a significant positive association was returned in this study between knowledge of condom use and threat appraisal with higher levels of appreciation of personal susceptibility and severity

to HIV/AIDS predicting better knowledge of condom use. The obvious implication for the design of prevention programmes is to target both threat appraisal and knowledge and skills in condom use as means of increasing the likelihood of protective sexual behaviour.

## **7.8 PEER NORMS**

This scale was constructed on the premise outlined by the "Theory of Reasoned Action", where behavioural intention is determined largely by the perceived subjective norms of significant others. Most people across the world if asked where they got most of their information about sex when they were growing up, will say it was their peers (WHO, 1995). This scale therefore examines the extent to which peer norms affect MMR adolescent opinions about sexual activity and condom use. In determining respondents perceptions of condom usage amongst their peers, just under half of the respondents (41%) reported that their classmates who were sexually active did not use condoms, with a further 34% being unsure. Patriarchy on the one hand, juxtaposed with the media barrage promoting condom use, is possibly leading to a large degree of vacillation and leaves condom use as a contested terrain. A further explanation as to why the large majority of respondents were unsure (34%) whether their classmates used condoms could be explained in terms of respondents being unlikely to discuss condom use with their peers due to embarrassment.

In order to determine whether these subjects were influenced by patterns of sexual practices that are socially constructed or by patriarchal views regarding women and sex,

respondents were asked whether they thought boys should use condoms with "loose girls" only. 1 in 2 responded in the affirmative. This finding could be looked at in terms of Strebel's (1994) explanation that with regard to HIV/AIDS it is only the dishonourable and promiscuous women who are perceived to carry risk. There is sufficient evidence that gender role patterns and societal constructs of immorality have significantly influenced adolescents.

It was worrying to note that close to 1 in 3 respondents believed that condoms should not be used with steady partners. The issue of trust outweighs the risk of HIV transmission, with suggestions of condom use being misconstrued as an indication of infidelity. This finding is consistent with research conducted by Singh (1991) at the University of Natal, where most teenagers revealed that while condoms should be used with casual sex partners, it was not necessary with permanent lovers. This confirms that young people are at risk partly through the limitations and expectations of the societies in which they grow up.

In determining views on "pre-marital sex", respondents were asked whether it was all right for boys and girls to have sex before marriage. Respondents displayed moralising attitudes, with 69% indicating that boys should not engage in pre marital sex and 71% indicating that girls should not engage in pre marital sex. This finding may be a reflection of the dominant moral, religious and cultural norms of the community. The results of the present study are in contradiction to that of other studies (e.g. Van Aswegen, 1995), where in a study of black high school pupils the majority indicated that pre marital sex is

normal. However, the results of this study confirm Watson's (1980) viewpoint that MMR adolescents are more conservative in their attitudes than non-retarded adolescents. An item analysis revealed a significant race difference in approving of girls having premarital sex, with Indians as compared to African and Coloureds holding more conservative attitudes, which could be reflective of conservative cultural norms and its effect on MMR adolescents.

The final question in this scale was included to determine whether MMR adolescents were comfortable in letting their friends know that they use a condom. Just under half the respondents (46%) indicated that they would not like their friends to know that they use a condom, which once again could be linked to moralizing attitudes regarding condom use. Data analysis revealed significant gender differences, with more females than males reporting discomfort in discussing condom use with friends, which could be explained in terms of Smart's (1992) finding that in some South African communities women are prohibited from discussing sex.

From the discussion above, it is apparent that MMR adolescent's opinions about sexual activity, condom use, gender role patterns and perceptions of immorality are determined largely by peer norms. Although in this study, MMR adolescents did not view peers as credible sources of information (see section 7.10), it is clear that risk reduction behaviours can be reinforced by appropriate peer group pressure.

## 7.9 SELF EFFICACY

The concepts of sexual negotiation and decision making are important in relation to health behaviour and HIV/AIDS. The self-efficacy scale was constructed to determine whether respondents were able to assert themselves in negotiating their own sexual involvement and condom use. In determining respondents' confidence in their ability to speak to a friend about sex, 1 in 3 respondents indicated that they would be embarrassed to speak to a friend about sex. This may be due to respondents having learned that talking about sex is wrong. An equal number indicated that they would be embarrassed to tell someone they do not want to have sex. This finding is not surprising considering that MMR adolescents generally have low levels of self-confidence and poor decision making skills (Kaplan & Sadock, 1998).

Much has been written about the gender dynamics surrounding sexual issues, with women in many societies having been shown to be in a position where they are unable to assert themselves in sexual relationships. It was interesting to note that just over 2 in 3 respondents felt that boys almost always manage to convince their girlfriends to have sex. This finding is consistent with that of Wood and Jewkes (1998) who showed that communication between partners on sexual issues is virtually non-existent and that the conditions and timing of sex are defined by male partners. Alternatively, this could be due to "learned helplessness" (Seligman, 1975) where females through societal expectations begin to conclude that they have little control over significant aspects of their lives (e.g. sexual decisions) which could have been learned through MMR

adolescents' experiences and through the reactions of others. The above findings are in keeping with that of the NPPHCN (1995) survey, where it was found that sexual relationships for boys were strongly affected by social concepts of masculinity.

Having looked at general indicators of sexual communication and negotiation, we turn to examine indicators that provide insight into other features of sexual communication that may have a bearing on the capacity to adopt HIV risk prevention measures. The first indicator concerns the ability to say "no" to sex. 82% of respondents indicated that they were able to tell their girlfriend/boyfriend that they did not want to have sex. There was a significant difference across age and grade in the ability to say "no" to sex, with the younger and lower grade respondents showing lower levels of self-efficacy, which could be due to developmental differences or different socialization experiences.

In determining levels of self efficacy with regard to condom usage, close to 2 in 5 respondents (39%) indicated that they would find it difficult to ask their sexual partner to use a condom and 1 in 5 respondents (20%) indicated that they were embarrassed to use condoms. This finding is similar to that reported in the NPPHCN (1995) survey which showed that many adolescents lack the confidence and skill to negotiate contraception and that these factors could be attributed to poor self efficacy.

Respondents were also asked whether their sexual partners would agree to use condoms if asked. It was disturbing to note that only 41% of respondents were certain that their sexual partners would agree to use condoms if asked. This may be ascribed to perceptions



that condom use can lead to sickness and infertility (WHO, 1998) and to poor communication and negotiation skills that may result in low levels of self-efficacy. Significant race differences were noted, with a large number of Africans as compared to Indians and Coloureds reporting that their sexual partners would not agree to use a condom. This finding is consistent with the results of other studies (e.g. National Youth Survey 2000), where Africans were less likely than Whites and Coloureds to use contraceptives. Significantly more females than males indicated that their sexual partners would not agree to use condoms, again reflecting patriarchal norms related to sexual decision making and practices.

Eighty percent of respondents reported that they would not find it embarrassing to use a condom. Gender differences were noted, with significantly more females than males indicating that they would be embarrassed to use a condom. A possible explanation for this finding is that a young woman using a condom not only runs the risk of embarrassment, but in many societies a young woman found with a condom will be accused of immorality. Issues of power relations and gender therefore prevent women from negotiating safer sex practices (Smart, 1992). The present study found that higher perceptions of threat were strongly associated with higher levels of self-efficacy, again indicating that these constructs should be integral components of HIV/AIDS education programmes for MMR adolescents.

The findings of this scale have important implications with respect to incorporating the following life skills in HIV/AIDS education programmes: responsible decision making,

assertiveness, self confidence, coping and negotiating skills and a capacity to value and protect oneself and others. Particular attention obviously needs to be paid to gender relations and patriarchy in the design and delivery of these life-skill interventions.

## **7.10 HEALTH SEEKING BEHAVIOURS**

To investigate the nature of support systems, respondents were asked what they would do if they found out that they were infected with HIV. Respondents were given a response set from which they were to choose as many alternatives as possible. The large majority of respondents (88%) indicated that they would go regularly for treatment. This may be so because respondents realize that HIV/AIDS is a medical disease or because of the widespread publicity regarding antiretroviral drugs and their role in slowing the disease process.

66% of respondents indicated that they would keep their HIV status a secret. Cognitive dissonance (Festinger, 1957) is obvious here, in that while in previous questions the majority of respondents showed a great deal of tolerance and acceptance of people who are infected, the majority would still keep their HIV status a secret. A possible explanation for this state of mental discomfort could be because respondents perceive the attitude of the community as negative towards people who have HIV/AIDS and are aware of the extent of stigmatization associated with the disease and fear rejection if one has the disease. Even more disturbing with regard to this trend is that 16% of respondents

indicated that they would isolate themselves from friends and relatives and 8% indicated that they would commit suicide.

To determine sources of support, respondents were asked whom would they speak to first if they needed to speak to somebody about HIV/AIDS. Just under half the respondents (45%) indicated that they would speak to their parents. This finding could be explained in terms of Weisz's (1984) theory that mentally retarded people have a greater dependency on adults to solve problems. Furthermore, because mentally retarded as compared to non-retarded adolescents are directed into an extended childhood, they view their caretakers in a sheltering and protective role and are therefore more likely to consider them as sources of support. Although the category of parent was not divided into mother and father, most respondents said that they would speak to their mothers. This is in keeping with the findings of Richardson et al (1984), where they reported that adolescents tend to rank their mothers before their fathers as important sources of understanding.

Siblings fared poorly in the above rating, with only 7% of respondents indicating that they would turn to a sibling with a question on HIV/AIDS. In most studies, youth indicate that the group for imparting sex-related knowledge to them would be their peers (van Aswegen, 1995). However, in the above analysis only 10% of respondents indicated that they would prefer to speak to their peers about HIV/AIDS related issues. A possible reason for not wanting to ask peers questions about HIV/AIDS is that retarded individuals as a group have poor self concepts, both because of perceived intellectual inadequacy and poor social networks (Ellis, 1982). The findings of this study lends

support to the hypothesis proposed by Biehler and Snowman (1980) that parents and peers influence different aspects of adolescent behaviour, which suggests that parents have a greater impact on decisions that have implications for the future, while peers influence decisions that involve current status and identity needs.

38% of respondents indicated that the medical profession is the desired source to turn to with worries and concerns about HIV/AIDS. This may be so because of the issue of confidentiality and the perception that medical personnel generally do not reject pre marital sexual involvement and do not feel uncomfortable discussing sex related issues. While it is troubling that respondents did not consider teachers as a source of support, this is understandable given the relative absence of HIV/AIDS education programmes at this school. This indicates the need for teachers to be integrally involved in such programmes, thereby increasing the perception and use of teachers as sources of support for MMR adolescents.

## **7.11 EDUCATION**

### **7.11.1 Sources of Information**

The purpose of this analysis was to provide an indication of the level of exposure to various sources of information. Respondents indicated exposure to both media and community based sources of information, with the average number of sources of information being 2,8. There are high levels of media exposure to HIV/AIDS, with a total of 84% of respondents having received information about HIV/AIDS from television, which could be due to the disease being widely publicized through television

programmes, various documentaries and advertisements. While radio has also been an important medium for HIV/AIDS education, this group of adolescents has not reaped the benefits of this medium, with only 12% of respondents indicating that they have heard about HIV/AIDS from the radio. Although there has been widespread coverage in the print media in the form of newspaper articles, billboards and pamphlets, only 1 in 5 respondents (20%) reported print media as a source of information. This could be because of the relative lack of publications tailored to their reading level and the lack of availability and access to information from written materials.

It is evident from the above analysis that there has been significant penetration of information from the media to MMR adolescents. While this information may have increased awareness of HIV/AIDS, it has obviously had limited impact on improving knowledge, attitudes and producing sexual behaviour change.

Teachers were ranked second (39%) as sources of information. Further analysis showed that there was a difference across grades in receiving HIV/AIDS information from teachers, with the second year orientation students indicating that they have received such information from their educators, implying that some educators have been actively involved in HIV/AIDS awareness. Only 32% of respondents reported hearing of HIV/AIDS from peers, which may be because respondents perceive their peers as less knowledgeable than average and do not see them as good models of responsible behaviour. It was interesting to note that a significantly higher number of respondents viewed educators and peers as sources of information rather than sources of support,

probably because programmes involving educators and peer learners have not been established for this group of learners.

The analysis indicated that the home was hardly a source of information about HIV/AIDS, with 28% of subjects having heard of HIV/AIDS from parents and 11% having heard of HIV/AIDS from siblings. This is in keeping with Zazayokwe's (1990) analysis of the responses of South African communities that showed that parents and siblings do not condone the open discussion of HIV/AIDS as it entails discussing sex. A further explanation is that parents often feel more insecure discussing sexuality with a disabled child (National Institute for People with Disabilities, 1995). While the African community has been found to display greater parental resistance to discussing sex than other race groups (Zazayokwe, 1990), no apparent difference in discussing HIV/AIDS with a parent or sibling across race was noted in the present study.

While it is apparent from the above analyses that respondents have received information from a broad range of sources, the issue of concern is whether these sources of information are adequate for individuals with mental retardation, who may be less capable of sorting out messages about sex. Further, they are more likely than other learners to believe myths and misinformation and to misinterpret messages.

### **7.11.2 Sexuality Education at School**

Two central issues were addressed in this scale viz. the school's involvement in sex education and respondents' suggestions regarding the delivery of suitable HIV/AIDS initiatives at school.

Over half of the respondents (59 %) indicated that their school does not play an active role in sex education. This is not surprising considering that until recently there has been little provision for sex education in the majority of South African schools, as a result of conservative community, religious and parental views (Reddy et al, 1992). The results of the present study are consistent with the findings of Gilles and Mc Evens (1981) who found that MMR adolescents do not receive the amount of sex education they want or need in schools. The lack of sex education for MMR learners could be attributed to the misconception that information regarding sexual practices and contraceptives will encourage promiscuity or that educators fail to see these children as having sexual needs. This finding challenges us to re-examine the role and goals of education for MMR adolescents, especially in view of the Children's Charter of South Africa (1992), which endorses the right of all children to sex education.

Respondents were asked their opinions about suitable HIV/AIDS initiatives at school. 1 in 3 respondents indicated that they favoured talks and programmes run by medical experts. A possible explanation is that medical personnel are seen as knowledgeable

regarding medically related topics. Furthermore, medical personnel are generally not uncomfortable discussing sex related topics, do not generally expect the youth to practice total restraint and keep personal matters confidential. Teachers were ranked second as a choice to run HIV/AIDS awareness programmes. This finding has implications for the feasibility of the Health Promoting Schools Concept, where the school should be seen as a base to run HIV/AIDS awareness programmes. In most studies (e.g. Van Aswegen, 1995), youth indicate that the group of persons whom they would prefer to impart sex-related knowledge would be their peers. In the present study, however only 8% of the subjects indicated that peers should run AIDS awareness programmes. Although peer education and support is viewed as crucial for the reinforcement of HIV/AIDS educational messages, personality characteristics displayed by MMR adolescents, viz. low self-confidence, over dependency, low levels of aspiration and extrinsic means of problem solving (Zigler & Hodapp, 1986) cast doubts on their ability to be competent peer educators and role models. To address this problem, and in keeping with the normalization principle aimed at including persons with mental retardation in the mainstream of society, peer education could still be implemented, with non retarded adolescents delivering peer education programmes for MMR adolescents.



## **CHAPTER 8**

### **CONCLUSIONS & RECOMMENDATIONS**

#### **8.1 CONCLUSIONS**

This study investigated the knowledge, attitudes and practices of a sample of MMR adolescents in relation to HIV/AIDS at a pre-vocational school, as well as the extent to which peer norms and self efficacy inform their attitudes and behaviours. The literature review examined HIV/AIDS from a social, psychological, behavioural, economic and educational perspective. Relevant policies and procedures pertaining to the rights and responsibilities of MMR adolescents were discussed. In addressing the objectives of the study, the following conclusions emerge:

- General awareness of HIV/AIDS was high, although a significant minority of MMR persons in the younger age group were still unaware of the virus. Confusion about the causal role of the HIV virus was noted.
  
- Despite good levels of knowledge that HIV/AIDS can be contracted through sexual transmission, there was ignorance about transmission by sharing physical utilities and by social interaction. The mechanisms of transmission were poorly understood, suggesting that MMR adolescents' understanding of the modes of transmission were poorly established and open to misinterpretation.

- A quarter of the sample erroneously believed that HIV/AIDS could be cured.
  
- Knowledge of means of detection was found to be adequate. Of concern, however, was the finding that over half of the respondents believed that the virus was readily visible in the outward appearance of an infected person, creating the basis for social stigma and discrimination.
  
- The overwhelming majority of respondents acknowledged that their knowledge of HIV/AIDS was limited, suggesting that public and media messages about HIV/AIDS have not been ineffective.
  
- HIV/AIDS is increasingly touching the lives of MMR adolescents, who reported a fair deal of exposure to infected persons and who knew of someone who died of HIV/AIDS.
  
- A large majority of respondents viewed HIV/AIDS as a serious health hazard that results in death. The findings show that there is a much greater sense that HIV/AIDS is a threat to society as a whole than there is a sense of it being personal threat, with comparatively fewer respondents indicating that they were susceptible to HIV infection. Respondents who were more knowledgeable about methods of transmission were more likely to view HIV/AIDS as a personal threat.

- Respondents reported fear of contracting HIV/AIDS through a range of casual and social contact mechanisms, thereby strengthening the argument that ignorance promotes fear.
- Subjects generally did not hold prejudicial views towards infected persons, neither did they ascribe blame to any particular group of persons. Although the large majority of respondents showed attitudes of tolerance, more than half indicated that they would keep their HIV status a secret, indicating an awareness of the rampant social stigma and discrimination suffered by people living with HIV/AIDS.
- While respondents appeared to be well informed regarding condom use and abstinence from sex as methods of preventing HIV/AIDS, the role of multiple sex partners as a risk factor was poorly understood, indicating that education interventions need to go beyond an emphasis on condom use as a protective measure.
- Fourteen percent of the sample reported being sexually active, with thirty-one percent of this sample reporting having 2 or more partners in the six months preceding the study. This study has shown that MMR adolescents experiment with sex at a young age, sometimes involving multiple sexual partners and highlights the importance of effective sex education programmes at an early age.

- Although there was a generally high level of awareness about the usefulness of condoms in preventing HIV/AIDS, only 1% of respondents reported always carrying a condom and condom use among sexually active respondents appeared to be low.
- The results of the survey demonstrated that the sample was strongly influenced by peer norms, with decisions about sexual intercourse being a male prerogative. Educational programmes therefore need to address the issue of patriarchy and the effects of skewed gender norms on sexual practices.
- With regard to self-efficacy, a large number of respondents were unable to assert themselves in negotiating their own sexual involvement and condom use. Most respondents in the study indicated that the conditions and timing of sex are defined by male partners and that their sexual partners would be reluctant to use condoms.
- Parents and medical experts were viewed as important sources of information on HIV/AIDS, emphasizing the need for parents and medical practitioners to create more open channels of communication and to play a more central role in sexuality education for MMR adolescents.
- While there have been strong indications that adolescents in the study have been exposed to HIV/AIDS information from a range of different sources, the school, (and teachers in particular), have been under utilised as a health promotion setting. This research has highlighted the failure of the school to educate MMR adolescents about

HIV/AIDS. This discrepancy signals an area of education that must be addressed and it is hoped that this analysis might assist in the adaptation and refinement of school policy with regard to sexuality education.

## **8.2 LIMITATIONS**

This section discusses some of the limitations in the study.

- The study was confined to a sample of African, Indian and Coloured 14-16 year old MMR adolescents from one particular school in the Durban Metropolitan area. Further, there was a disproportionate distribution of subjects in respect of certain biographical variables such as gender and race, with female and Coloured adolescents in particular being under represented. Caution should therefore be exercised in generalising the findings of this study to MMR adolescents across race, gender, schools and geographical regions.
  
- The personal interviewer approach was used to gather data in the study. The potential for interviewer effects is greater with face to face interviews, creating a situation that may result in biased responses. Further, the sensitive nature of the research topic could have resulted in socially appropriate or defensive responses that were not necessarily reflective of the subject's attitudes and behaviours.

- The design of the research did not provide for a control group that would have permitted a comparison of the responses of MMR adolescents with those of non-retarded adolescents. Despite this, the research does provide comparative data between race and gender subgroups of the sample.
  
- A factor that could have confounded the results is the influence of extraneous variables. Given the relatively small population size, a saturation sampling strategy was utilised, where variables such as co-existing medical conditions, socio-economic status and mental state were not controlled for. The present study did not examine the effects of these variables and their impact on respondents' knowledge, attitude and practices in relation to HIV/AIDS.

### **8.3 THEMES AND DIRECTIONS FOR FUTURE RESEARCH**

As the HIV/AIDS epidemic continues to worsen, dissatisfaction with largely descriptive social science research has increased, resulting in the emphasis being shifted to contextual studies of sexual practices using qualitative methods (Gillies, 1996). The current trend according to Gillies (1996) is to combine large scale KAP studies with qualitative research in an attempt to understand the outcomes described in the KAP study. Despite these research advances, HIV/AIDS in MMR adolescents is an area of research that has not caught the interest of social scientists in South Africa. As discussed in the methodology section of this report, the present study, based exclusively on the quantitative KAP methodology, should be used as an

impetus for further qualitative and contextual research with this sample group, in order to inform the development of tailored behaviour change interventions within the school setting. It is thus strongly recommended that future research should include triangulated designs comprising large random samples in order to promote a better understanding of the contextual factors that inform the knowledge, attitudes and practices of MMR adolescents in relation to HIV/AIDS. Research participants should include caregivers, so that information regarding the effects of interactions and support systems could be obtained.

Despite the findings of the present study, much remains unanswered. Further research ought to pursue some of the following issues which are vital for a broader understanding of the transmission dynamics of HIV/AIDS among MMR adolescents:

- In the area of sexual behaviours and risk prevention, the following need to be considered:
  - Conditions under which sexual practices are negotiated.
  - Understanding the reasons for the lack of condom use and multiple sexual partners.
  - Factors underlying the maintenance and consistency of risk prevention practices.
  - Understanding the conditions that promote high levels of risk taking behaviour.
  - The effects of peer norms and interaction on risk attitudes and behaviour.
  - Factors that underlie early sexual onset in order to develop strategies to delay the age of sexual debut.

- Reasons as to why respondents feel that they are not susceptible to HIV infection.
  - The impact of various sources of information on respondents knowledge of HIV/AIDS, in order to promote effective health communication.
- In terms of care, the following issues need to be addressed :
- The relationship between exposure to infected persons and care.
  - Reasons underlying the lack of discussion on HIV/AIDS and care in the school setting and family context.
  - Factors that promote or hinder the development of a caring and non-discriminatory school culture with regard to people living with HIV/AIDS.

Whilst this survey has produced valuable data to inform the design of HIV/AIDS prevention efforts, it has also provided base-line statistics which can be used for comparative purposes in future post-intervention surveys. It is hoped that this small-scale study represents the beginning of systemic research efforts to address the challenges of the AIDS epidemic amongst MMR adolescents.



## **8.4 RECOMMENDATIONS**

In light of the results of the study, it would be appropriate to make specific recommendations regarding the usefulness of the findings for MMR adolescents at NDS Pre Vocational School.

### **8.4.1 Policies and Procedures**

- A school HIV/AIDS Policy, tailored to MMR adolescents' needs, should be developed.
- The school management must demonstrate commitment to driving and supporting this policy.
- Educators and learners should be educated about their rights and responsibilities regarding HIV/AIDS.
- Policies regarding legal and practical issues with regard to sexual behaviours and HIV/AIDS especially confidentiality, need to be developed.

### **8.4.2 Behaviour Change Programmes**

The findings of this study demonstrate the need to implement a comprehensive educational programme as early as possible for all learners. An interactive model, driven by educators and medical personnel and tailored to the special needs of MMR adolescents, is strongly supported.

This educational intervention should focus on:

- Improving knowledge about the prevalence, transmission, detection and prevention of HIV/AIDS.
- Emphasising the severity of the disease and the personal susceptibility of MMR adolescents to contracting HIV/AIDS.
- Changing attitudes about HIV/AIDS to produce a caring and supportive environment for people living with HIV/AIDS and for those learners who have family members and friends who might be HIV positive.
- Challenging irrational and mythological beliefs about HIV/AIDS that may place respondents at further risk.
- Reducing and confronting fears and misconceptions regarding transmission through casual contact.

- Encouraging learners who are not sexually active to continue abstaining from sex or to delay the onset of their sexual debut.
- Issues such as peer pressure and gender coercion needs to be addressed.
- Building higher levels of self-efficacy.
- Increasing learner's exposure to people living with HIV/AIDS in order to enhance knowledge and improve attitudes.
- The promotion of condom use should include information on condoms and their use, as well as an emphasis on the consistent and correct use of condoms. Imparting skills in condom use and equipping people with condom use negotiating skills is considered critical. Condoms should be made available and accessible.

In the present study it is apparent that not all adolescents need to change their behaviours and certainly not all are exposed to the same degree of risk. There are many who are not sexually active and some who use condoms consistently. Although they do not need to change these behaviours, their practices nevertheless need to be understood, supported and endorsed. The educational intervention for these individuals need to focus on maintaining and endorsing these practices, rather than exclusively focusing on negative health behaviours.

### **8.4.3 Systemic Whole-School Interventions**

- Comprehensive sex education programmes as part of the whole school curriculum should drive and underpin school-based interventions.
- Poor levels of communication among learners and significant others such as parents and educators around sexual issues need to be singled out for specific intervention.
- The school setting should act as a springboard to mobilise and integrate community resources with regard to HIV/AIDS and sexuality education. The emphasis of community programmes should be on the building of partnerships among family, religious, school, media, business and other community groups. These programmes should include ethical and cultural awareness issues and should find common ground on basic values such as respect and restraint.

### **8.4.4 Support Services**

- A network of external support services needs to be established and made available to those learners and staff who wish to seek counselling, HIV testing and care outside the school setting.

#### **8.4.5 Monitoring and Evaluation**

- The KAP survey should be repeated in approximately 12-18 months time in order to evaluate changes in knowledge, attitudes and practices produced by the above interventions, thereby shaping the design of new interventions.

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**APPENDIX A**

**KNOWLEDGE, ATTITUDES, SEXUAL PRACTICES IN  
RELATION to HIV/AIDS SURVEY**

**SECTION A (Biographical Details)**

Age :  14-15 years

15-16 years

Sex :  Male

Female

Race :  Indian

African

Coloured

Grade:

Orientation 1A  Intermediate 3A

Orientation 1B  Intermediate 3B

Orientation 1C  Intermediate 3C

Orientation 2A  Intermediate 4A

Orientation 2B  Intermediate 4B

Orientation 2C  Intermediate 4C

Orientation 2D

Family Status:  Foster Care

Institutional

Single Parent Family

Dual Parent Family

## **Section B**

### **Existence**

1. Have you ever heard of sexually transmitted diseases?

- Yes
- Undecided
- No

2. Have you ever heard of HIV/AIDS?

- Yes
- Undecided
- No

3. Do you think that the HIV virus/germ causes AIDS?

- Yes
- Undecided
- No

### **Transmission**

1. The HIV Virus can be passed from one person to another through sexual intercourse?

- Yes
- Undecided
- No

2. A person can get HIV/AIDS by eating food prepared by a person with HIV/AIDS?

- Yes
- Undecided
- No

3. A person can get HIV/AIDS by playing with someone who has HIV/AIDS.

- Yes
- Undecided
- No

4. A person can get HIV/AIDS by sharing a cigarette with someone who has HIV/AIDS.

- Yes
- Undecided
- No

5. HIV/AIDS is transmitted by mosquito bites.

- Yes
- Undecided
- No

6. HIV/AIDS can be transmitted by kissing a person who is infected with the HIV virus.

- Yes
- Undecided
- No

7. A person can get HIV/AIDS by holding hands with someone who has HIV/AIDS.

- Yes
- Undecided
- No

8. A person can get HIV/AIDS by using needles used by a person who is infected with the HIV virus.

- Yes
- Undecided
- No

9. A person can get HIV/AIDS by travelling on the same bus or taxi with a person infected with the HIV virus.

- Yes
- Undecided
- No

10. A person can get HIV/AIDS by living in the same room/house with a person who has HIV/AIDS.

- Yes
- Undecided
- No

11. A person can get HIV/AIDS if someone with HIV/AIDS coughs on you.

- Yes
- Undecided
- No

### Cure

1. HIV/AIDS can be cured?

- Yes
- Undecided
- No

2. HIV/AIDS can be cured by a doctor?

- Yes
- Undecided
- No

3. A traditional or faith healer can cure HIV/AIDS.

- Yes
- Undecided
- No

4. A person who has HIV/AIDS can be cured if he has sex with a virgin?

- Yes
- Undecided
- No

### Detection

1. You can find out if you have HIV/AIDS by:

- 1.1. asking you parent
- 1.2. asking your friend
- 1.3. asking your doctor
- 1.4. seeing a traditional/faith healer
- 1.5. taking a blood test
- 1.6. other

2. A person who is infected with HIV/AIDS can look healthy for many years.

- Yes
- Undecided
- No

### **Knowledge of Condom Use**

1. Have you seen a condom?

- Yes
- No

2. Do you know what a condom is used for?

- Yes
- No

3. Condoms used correctly when having sex will protect a person from getting HIV/AIDS.

- Yes
- No

### **Perceived Knowledge**

1. How much do you think you know about HIV/AIDS?

- V. little
- little
- Average
- A lot
- V. Much

## **SECTION C**

### **Personal Contact**

1. Do you know of anyone who has HIV/AIDS?

Yes

No

2. Do you think anyone in your school has HIV/AIDS?

Yes

Undecided

No

3. Do you know of somebody who has died of HIV/AIDS?

Yes

No

### **Fear**

1. Would you be afraid to play with someone who has HIV/AIDS?

Yes

Undecided

No

2. Would you be afraid to share food with someone who has HIV/AIDS?

Yes

Undecided

No

3. Would you be afraid to use a pen used by someone who has HIV/AIDS?

Yes

Undecided

No

4. Would you be afraid to sit next to someone who has HIV/AIDS?

Yes

Undecided

No

5. Would you be friends with someone who has HIV/AIDS?

- Yes
- Undecided
- No

### **Severity**

1. HIV/AIDS is not a serious problem

- Yes
- Undecided
- No

2. HIV/AIDS can kill a person?

- Yes
- Undecided
- No

### **Susceptibility**

1. Do you think you could get HIV/AIDS?

- Yes
- Undecided
- No

### **Prejudice**

1. Only Blacks can get HIV/AIDS.

- Yes
- Undecided
- No

2. Parents who find out their children have HIV/AIDS should punish them.

- Yes
- Undecided
- No

3. A person who has HIV/AIDS deserves to die.

- Yes
- Undecided
- No

### **Prevention of HIV/AIDS**

3. What do you think is the best way to protect yourself against HIV/AIDS?

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### **Practices**

1. Have you ever had sex?

- Yes
- No

2. How many sexual partners have you had in the last six months?

- One
- Two
- Three
- More than Three
- None

4. If you are sexually active, do you use a condom?

- Always
- Sometimes
- Never
- Not Applicable

5. Do you carry a condom with you?

- Always
- Sometimes
- Never



## **Peer Norms**

1. Do any of your classmates who are sexually active use condoms?  
 Yes  
 Undecided  
 No
2. Do you think boys use condoms with "loose girls" only?  
 Yes  
 Undecided  
 No
3. Do you think condoms should not be used with steady sexual partners?  
 Yes  
 Undecided  
 No
4. Is it all right for boys to have sex before marriage?  
 Yes  
 Undecided  
 No
5. Is it all right for girls to have sex before marriage?  
 Yes  
 Undecided  
 No
6. I would not like my friends to know that I use condoms.  
 Yes  
 Undecided  
 No

## **Self Efficacy**

1. Are you embarrassed to speak to a friend about sex?  
 Yes  
 Undecided  
 No

2. Are you embarrassed to tell someone that you don't want to have sex?

Yes

Undecided

No

3. Boys almost always manage to convince their girlfriends to have sexual intercourse.

Yes

Undecided

No

4. Could you tell your girlfriend or boyfriend you don't want to have sex?

Yes

Undecided

No

5. Would you find it difficult to ask your sexual partner to use a condom?

Yes

Undecided

No

6. Even if you were to ask your sexual partner to use a condom, he/she will disagree.

Yes

Undecided

No

7. Would you find it embarrassing to use a condom?

Yes

No

### Sources of Information

1. From which sources have you heard about HIV/AIDS? (Tick all those that apply)

1.1. Parents

1.2. Brother/sister

1.3. Friends

1.4. Other family members

1.5. Teacher

- 1.6. Radio
- 1.7. Television
- 1.8. Religious Organisation
- 1.9. Clinic/Hospital
- 1.10. Home based institutional activities
- 1.11. Newspaper/magazines/books
- 1.12. School Activities
- 1.13. Other

### **Sexuality Education at School**

1. Does your school educate children about sex?

- Yes
- No

2. What is the best way for the school to educate you about HIV/AIDS?

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### **Care and Support**

1. What would you do if you find out you have HIV/AIDS? (Tick all those that apply)

- 1.1. go regularly for treatment
- 1.2. leave school
- 1.3. run away from home
- 1.4. commit suicide
- 1.5. keep it a secret
- 1.6. isolate myself from friends and relatives
- 1.7. other (specify)

2. If you need to speak to somebody about HIV/AIDS, whom would you speak to first? (Tick one person only)

- 2.1. your parents
- 2.2. your brother/sister
- 2.3. any other family member
- 2.4. your friend
- 2.5. doctor/nurse
- 2.6. your priest
- 2.7. traditional/faith healer
- 2.8. other (specify)



# University of Durban-Westville

## RESEARCH ADMINISTRATION

27 NOVEMBER 2000

**MS. N. A. DAWOOD**  
**EDUCATIONAL STUDIES**



TEL: (031)204 5008  
FAX: (031)204 4883



ALL CORRESPONDENCE TO BE ADDRESSED  
TO: THE HEAD - RESEARCH ADMINISTRATION

Dear Ms. Dawood

### ETHICAL CLEARANCE: NUMBER 00162A

I wish to confirm that ethical clearance has been granted for the following project subject to an acceptable questionnaire and interview schedule (reviewed by the Faculty Research Committee) being submitted to Research Administration for clearance via the Ethics Committee:

*"A survey of knowledge, attitudes and sexual practices  
in relation to AIDS among mildly mentally retarded  
learners."*

Thank you

Yours faithfully

**SUGAN REDDY**

**(FOR) HEAD RESEARCH ADMINISTRATION**

**PS:** The following general condition is applicable to all projects that have been granted ethical clearance:

THE RELEVANT AUTHORITIES SHOULD BE CONTACTED IN ORDER TO OBTAIN THE NECESSARY APPROVAL SHOULD THE RESEARCH INVOLVE UTILIZATION OF SPACE AND/OR FACILITIES AT OTHER INSTITUTIONS/ORGANISATIONS

cc. Director of School  
cc. Supervisor