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ACQUIRED IMMUNE DEFICIENCY SYNDROME: ITS IMPACT ON GAY MALE LIFESTYLES

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A Research Report submitted to the Faculty of Arts of the University of the Witwatersrand, in partial fulfilment of the requirements for the Degree of Master of Arts, Clinical Psychology

Johannesburg

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DECLARATION

I declare that this research report is my own unaided work. It is being submitted for the degree of Master of Arts in Clinical Psychology at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other university.

_____ _____

H.Anthony Cave Date

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ABSTRACT

Research has revealed that many gay men continue to participate in high-risk sexual practices which place them at risk of exposure to the AIDS virus. The locus of control construct and the Health Belief Model were employed by this study in an attempt to identify those psychosocial factors which might influence gay men to adopt or neglect health protective behaviour. The study used a two independent group design to compare two groups of gay men, those who engaged in high-risk sexual behaviour and those who did not, on the locus of control dimension, and on the dimensions of the Health Belief Model. The results confirmed the hypothesis that there was a significant difference between the two groups on the locus of control dimension, with the subjects in the high-risk group tending to have an external locus of control. It was concluded that gay men with an external locus of control would be more likely to engage in high-risk sexual activity. The comparison of the two groups on the dimensions of the Health Belief Model provided further information. In particular, it was found that the subjects in the high risk group tended to perceive themselves inaccurately as being at little or no risk of infection.

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CHAPTER 1

INTRODUCTION AND RATIONALE

This research report attempts to identify the factors which may influence gay men to adopt preventive behaviours to avoid infection with the AIDS virus. It specifically examines whether gay[1] men who demonstrate an external rather than an internal locus of control are more likely to participate in sexual activities which may expose them to the risk of infection. If this proposition is supported, it has important implications for the prevention of AIDS. The study will similarly examine the Health Belief Model which attempts to predict people's responses to health threats and can thus also provide valuable information with respect to AIDS prevention programmes.

1. Rationale

AIDS (Acquired Immune Deficiency Syndrome) is a disease for which there is no known cure. At present no vaccine is available to combat the AIDS virus. A recent World Health Organization report estimates that by the year 2000 the cumulative total of people infected with the AIDS virus will range from 30 to 40 million. This indicates that infections worldwide will at best triple and at worst quadruple in the next 8 years (WHO/9, 1992).

In South Africa the figures are just as alarming. The official figures released by the Department of National Health and Development state that by March 1992 there were 1186 people

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[1]The term "gay" describes people who are aware of an erotic preference for persons of their own gender (Isaacs and McKendrick, 1992).

who had tested positive for HIV and that 424 of them had already died as a result (AIDS-Scan, 1992). In fact, these figures are a gross underestimation. It is generally accepted that at present up to 400 people a day are being infected with the AIDS virus (The Weekly Mail, Oct. 30, 1992; The Star, Nov. 12, 1992).

Despite considerable controversy and dispute surrounding future scenarios, some researchers predict that AIDS will effectively "halt the population growth of South Africa ... by the year 2000" (Shurink and Shurink, 1990, p. xvi). For example, one recent study suggests that as many as 6% of the white population will be infected by the end of the nineties. Another study suggests that, in a worst case scenario, up to 45% of the black population will be infected by the year 1996 (both cited in Weber, 1990). The Health Policy Unit at the University of the Witwatersrand Medical School predicts that by the year 2005, 2.9 million people are likely to have died from AIDS if no significant behavioural shifts occur (Masobe, 1992). Thus it is clear that AIDS is one of the most terrible threats which confronts this country's population. Hence the urgency for research into the prevention of AIDS cannot be underestimated.

For all the scientific and media attention it receives, AIDS remains a complex disease syndrome to comprehend. To date its origins and many of the medical factors involved are still speculative or unknown (Shilts, 1987; WHO/44, 1992). However, medical research has generally agreed that the human immunodeficiency virus (HIV) is the infectious agent, and that it is mainly transmitted through the exchange of bodily fluids (Evian, 1992).

The predominant routes of possible HIV infection include unprotected sexual contact, sharing of needles by intravenous drug-users, blood transfusions, repeated use of non-sterilized medical instruments and in utero infection (Eloff, 1988; Evian, 1992; Neale, 1992). Given that no cure or vaccine has been developed, and that only a limited and extremely expensive range of palliative treatments are available, it is essential that the transmission of HIV is checked. The only effective way to halt the spread of the virus at this stage, therefore, is through prevention (Kelly and Murphy, 1992; Temoshok and Brown, 1990). People need to discontinue any behaviour which places them at risk for exposure to the virus. This study will focus precisely on those factors, particularly locus of control, which might influence the adoption of such preventive behaviour.

The most common route of HIV transmission is considered to be through sexual contact. The adoption of sexual practices which do not permit the transmission of the virus is therefore regarded as one of the major means of prevention at this stage (e.g. Evian, 1992). This immediately raises a host of issues which concern not only the areas of education, prevention and sexuality, but in particular the methods of changing sexual behaviour.

The understanding of sexual behaviour in the face of the AIDS crisis has undergone a shift. Initially, it was assumed that people were exposing themselves to potential infection as a result of being ignorant of the risk factors. It was therefore believed that a massive educational campaign simply describing high risk behaviour and presenting safer alternatives would

produce awareness which would persuade people to alter their sexual behaviour (Bauman and Siegel, 1990). As Edelston stated in 1988, "Education is the best prophylactic against AIDS" (p. 40). However, the limitations of this view and approach soon became clear (Hobfoll, Gayl , Gruber and Levine, 1990). In spite of people's apparent awareness of the threat to their health, many were still not adopting the protective behaviour changes which were being advocated (Kelly and Murphy, 1992; Kotarba and Lang, 1986; Shurink and Shurink, 1990). This raises the question of which other factors influence preventive behaviour change.

While much research remains to be done into different aspects of the public health education process, almost all the findings challenge the view that AIDS education which is solely information-focused will change behaviour. It is clear that other more complicated issues are playing a role (Becker, 1979; Hobfoll et al., 1990; Kotarba and Lang, 1986).

Among these are a number of psychosocial issues. However, it is only in more recent times that these have begun to be appreciated by health workers. With recent breakthroughs in medical science leading to a drastic reduction of infectious diseases, attention has shifted increasingly to those diseases where it is the person's personal behaviour or lifestyle that puts him or her at risk (Becker, 1979).

Of particular interest to those working in the field of health behaviour is the question of why people do or do not respond appropriately to well-known health risks. Research, for example, has shown that many people do not take adequate measures to protect their health even when advised to do so by their own

doctors (Becker, 1979). Similarly, it has become well-known that general health and medical advice (e.g. to stop smoking, to reduce intake of high cholesterol food, to exercise regularly) is often not acted upon even when it is obvious that it would be to the person's definite advantage to do so (Becker, 1979).

What are the factors that influence the person to either observe this advice and act upon it or not? What are the factors involved in the decision-making process with regard to personal health protection? These are important questions and various attempts have been made recently by the social and behavioural sciences to investigate some of the social and psychological factors involved (Temoshok and Brown, 1990).

One area very much in need of further research is that concerning some of the possible personality factors which may modify a person's response to AIDS prevention strategies. This study attempts to address this need by exploring some of these personality dimensions, in particular the locus of control.

Clearly, for a new behaviour to be adopted, a person must believe that it will bring about certain benefits. However, early social learning theorists identified a number of people who appeared to see no link between their behaviour and desired outcomes (Phares, 1976; Rotter, 1966). Such outcomes were rather seen to emanate from forces over which they had no control, such as fate, luck or the influence of powerful others. They thus saw control over their lives as lying outside of themselves. Such persons were described by Rotter (1966) as having an external locus of control. Those who believed that they had personal control over their lives and could act assertively to get their

needs met were said to have an internal locus of control (Rotter, 1966).

It can therefore be postulated that the adoption of safer sexual practices will depend at least in part on a person's belief that such behaviour will bring about a reduction of the risk of infection. Indeed, researchers in the field of AIDS work have increasingly begun to speculate that people who believe their lives are controlled by forces outside of themselves may be unable to comprehend the necessity for safer sexual practices (Kotarba and Lang, 1986; Schurink and Schurink, 1990). Such persons may believe that their health status lies beyond their own influence and hence do not attend to education awareness programmes (Schurink and Schurink, 1990).

Within social learning theory, the perception of personal control can be divided into two distinct beliefs, namely self-efficacy and outcome expectancy. Self-efficacy is the belief that one has the ability to perform a particular behaviour in a given situation, while outcome expectancy refers to the belief that the behaviour will have the desired outcome. One theoretical model that utilizes these beliefs to identify the factors which influence the decision-making process with regard to health behaviour is the Health Belief Model (HBM). It can thus be successfully employed alongside the locus of control construct to provide information on how certain beliefs can influence responses to the AIDS threat (Rosolack and Hampson, 1991).

Initially developed by Rosenstock in 1966, and further refined by Becker and Maiman in 1975, the HBM argues that a person's readiness to take action and engage in health-protective

behaviours is a function of his or her perceptions and individual beliefs (Bauman and Siegel, 1990; Becker, 1979; Schurink and Schurink, 1990). The HBM postulates that a person's perception of personal vulnerability to an illness, and the belief that such an illness would have severe implications for him- or herself, are central to the adoption of preventive health practices. Perceived benefits and costs of behaviour change, as well as a number of modifying dynamics such as demographic and psychosocial factors, are also held to play a role in a person's compliance with health-protective behaviour (Bauman and Siegel, 1990; Becker, 1979; Schurink and Schurink, 1990).

The utilization of health protective measures is especially crucial in the case of AIDS where one exposure to the virus could be lethal (Crewe, 1992; Watney, 1987). But, just as research into other areas of health protection has shown, when it comes to the issue of potential exposure to HIV, people are notoriously poor at assessing their risks and complying with health protective strategies (Temoshok and Brown, 1990).

AIDS, because of its newness and potential devastation has, more than other diseases, come to be understood to be a biopsychosocial phenomenon. Its possible causes, cures and prevention are perceived to lie within the psychological, social and political fields as well as the medical (Bauman and Siegel, 1990; Temoshok and Brown, 1990). In recognising this, as well as the limitations of the more traditional information-giving or educational attempts at prevention, behavioural and social scientists have become increasingly involved. Psychologists and social workers now not only counsel those infected with the AIDS

virus and help them through the crises associated with the different stages of its possible development (e.g. Isaacs, 1986; Isaacs and McKendrick, 1992; Lopez and Getzel, 1984), but are also beginning to recognise the need to address the important issue of prevention (Kelly and Murphy, 1992).

As stated, this research report will examine both locus of control as a personality factor and the dimensions of the Health Belief Model in an attempt to identify possible contributing factors in the failure of people to adopt health protective behaviour. The focus of this research will be on the response of gay men to AIDS in South Africa.

2. Reasons for using gay male subjects

The subjects selected for this study comprise only gay men for the following reasons:

Firstly, in South Africa, as in the United States, it was the gay community which was first afflicted by the virus and which still continues to be one of the groups most severely affected. AIDS is now the second leading cause of death among American men in the 24 to 45 year age group, the majority of whom are gay (Kelly and Murphy, 1992). In South Africa, figures released by the Department of National Health and Population Development indicate that by March 1992 a total of 348 gay or bisexual men had been diagnosed as being infected with HIV.[2] Of these 348 infected persons, 345 are gay or bisexual white men and make up 88% of the total number of infected white South Africans

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[2]As noted earlier, official figures are generally believed to seriously underestimate the extent of HIV infection.

(n = 394), and 3 are gay or bisexual black men and make up 0.4% of the total number (n = 742) of infected black South Africans (AIDS-Scan, 1992).

Because gay men tend to engage more frequently in anal sex than other groups, and because anal sex is the most risky sexual behaviour in terms of HIV infection (Evian, 1992), the gay community is thus more susceptible to contracting the virus. Thus it is the type of sexual act that places people at risk. The notion that it is the number of sexual partners which places gay men (or anyone else) at risk has being disputed by workers in the field. They emphasize that it does not matter if a person sleeps with one or a thousand people - he or she can still contract or transmit the virus. It is preventive techniques which protect people (Crewe, 1992; Watney, 1987).

Another important reason for using gay men in this study concerns the fact that gay men form a politically disadvantaged group in society. At various points in history they have been portrayed as "immoral sinners" by certain religious bodies, as "criminal deviants" by the law and, despite more recent changes, as pathological or perverse by the psychiatric profession (Gough and Macnair, 1985). When AIDS initially began to affect the gay community, the societal response to it was inextricably tied to people's attitudes towards gay sexual orientations (Altman, 1986). Thus gay men who contracted HIV found themselves having to encounter homophobia and prejudice which existed prior to the identification of the disease (Altman, 1986). Shilts (1987) has suggested that it was the prejudice against gays in America that led to such a retarded response among government officials to

mobilize resources for research and the care of persons with AIDS.

Gay men have also been neglected by the majority of Government AIDS campaigns. Paradoxically, while the view was promoted that AIDS was a threat to the gay community and similar marginalised groups alone, those government sponsored education campaigns that were mounted frequently excluded them altogether. Neale (1992) has noted that there is an inherent contradiction in public health campaigns. Governments wish their workforces to be healthy but simultaneously do not wish to acknowledge even the presence of gay sexuality, adolescent sex, premarital sex etc. Such views are entrenched in laws which forbid gay sex, restrict ages of consent, etc. As Neale puts it, "they wanted a campaign but they could not stomach what would have to go into it" (Neale, 1992, p. 5). As a result education of the gay community and work amongst the initial gay people who contracted HIV and those who became sick has usually been left entirely to the predominantly gay organizations and their media. Gay organizations rely on self-funding at present (Watney, 1990).

Thus AIDS is a political disease. It tends to emerge mostly in vulnerable communities who are already oppressed through discrimination and denial of access to resources and power. In the West these disadvantaged and marginalized groups include gay men as well as blacks, women, children, immigrants, intravenous drug users, prostitutes and the poor (Fee and Fox, 1988). Because gay men are members of an oppressed minority group they tend to be powerless and therefore less able to feel that they have any control over their lives. It can therefore be postulated that

they may be more likely to manifest an external locus of control. Certain studies have confirmed this link between external locus of control and membership of an oppressed group (Adame, Johnson, Cole and Matthiasson, 1990; Phares, 1976). Since gay men are members of an oppressed minority group and, as previously argued, may thus tend to manifest an external locus of control, it is important to establish whether this personality factor does in fact play a role in gay men continuing to participate in high risk sexual behaviour which could expose them to HIV infection. The Health Belief Model can similarly provide insights into how gay men in particular formulate beliefs concerning AIDS which then influence their various responses to it.

This study intends to focus on the South African gay male community. Unfortunately, only the white gay community will be included. Black gay men face different issues when responding to the AIDS crisis as a result of the legacy of apartheid in South Africa. The consequences of apartheid include violations of human rights which in turn have led to associated health problems. The migrant labour system, the rural to urban drift, unemployment, poor housing, inferior education, inadequate health care and widespread poverty have all contributed to making the black population especially vulnerable to AIDS (Crewe, 1992). The inclusion and analysis of these factors is beyond the scope of this study. It is important to note however that the special concerns of gay black men must not be overlooked.

3. Summary

The aim of this research report will be to attempt to establish a link between the factor of external locus of control in a sample of gay men and their participation in sexual activity which might put them at risk for HIV infection. It will similarly employ the Health Belief Model to examine how gay men's beliefs concerning AIDS influence their subsequent health behaviour. Chapter 2 will firstly give an overview of the medical aspects of AIDS, with particular emphasis on viral transmission which pertains directly to the present study. Chapter 3 will then present a review of research into health behaviour and compliance to health regimens, including a more detailed examination of the locus of control and the Health Belief Model. Chapter 4 describes the aim, hypothesis and methodology of the research undertaken by this study. Chapter 5 presents the results which are then discussed in Chapter 6. Finally, the conclusion of this work is presented in Chapter 7.

CHAPTER 2

MEDICAL ASPECTS OF AIDS

AIDS is a complex disease syndrome to understand. However, it is essential that social scientists working within the AIDS field have a basic knowledge of the medical aspects of AIDS. Such knowledge informs the content and direction of intervention techniques and programmes which need to be accurate and potent (Temoshok and Brown, 1990). For this reason a brief overview of the medical aspects of AIDS which pertain to this research have been included. A more detailed description of the categories of HIV infection may be found in Appendix A.

1. Definition of AIDS

AIDS stands for Acquired Immune Deficiency Syndrome. It is caused by a virus termed the Human Immuno-Deficiency Virus (hereafter referred to as HIV). The virus attacks the body's natural immune system which reduces its ability to defend itself against certain infections and diseases. It is these resulting serious illnesses that usually prove fatal for people with AIDS (Eloff, 1988).

Thus a diagnosis of AIDS relies upon the identification of diseases which take the opportunity to invade a weakened immune system and are not the result of any other factor which may cause immune deficiency such as lymphoma, leukaemia, congenital immune deficiency or a history of steroid or other immuno-suppressive therapies (Kelly and St. Lawrence, 1988).

These elements are encapsulated in the following definition of AIDS as:

> "a reliably diagnosed opportunistic infection that is predictive of cellular immune deficiency and occurs in a person with no known pre-existing illness or therapies that would produce immuno-suppression" (Kelly and St. Lawrence, 1988, p.2)

2. Brief History of the Human Immuno-deficiency Virus

In 1981, five young men were treated at the UCLA Medical Centre for Pneumocystis carinii pneumonia (PCP), a particularly virulent form of lung infection which was rare in the United States. Within a few months clinical researchers in New York, San Francisco and Los Angeles submitted reports of twenty five previously healthy young men who had developed a rare cancer called Kaposi's Sarcoma which had always been restricted to elderly men (Eloff, 1988). None of the patients had any underlying illness to account for the development of these diseases but all exhibited severe immune system impairment and all were gay (Kelly and St. Lawrence, 1988).

Based on the initial erroneous conclusion that the illness specifically affected only gay men, it was known by researchers as Gay-Related Immuno-deficiency Disease (GRID). The legacy left by such "expert opinion" was the notion that AIDS was a "gay plague" - one that is still held by many laypersons today (Shurink and Shurink, 1990).

3. Discovery of the Human Immuno-deficiency Virus

The cause of AIDS was revealed to be a virus which was first described in 1983 by Luc Montagnier's group of investigators in Paris after the identification of unusual serum antibodies in the large majority of AIDS patients. They had isolated a new retrovirus from a patient with lymphadenopathy (chronic enlargement of lymph nodes) and called it the lymphadenopathy-associated virus (LAV). A year later Gallo's team from Bethesda, USA, isolated what they believed to be the causative virus and classified it as a third type of human T-cell leukaemia virus (HTLV III). As it does not cause leukaemia it was renamed Human T-cell Lymphotropic Virus, Type III (Eloff, 1988).

However, later investigations proved that LAV and HTLV III are basically different isolates of the same virus. To avoid confusion between the terms, the International Committee for Taxonomy of Viruses (Centres for Disease Control) proposed the designation Human Immuno-deficiency Virus or HIV (Kelly and St. Lawrence, 1988). Recent investigations describe a second virus known as HIV Type II (or HIV-2) which appears to be responsible for viral infections occurring in Africa (Eloff, 1988).

4. Structure and characteristics of HIV

The human immuno-deficiency virus (HIV) is a retrovirus that infects a specific type of white blood cell called the T (Thymus derived) lymphocyte. These are the "helper" cells that activate immune system functioning (Eloff, 1988). HIV is a RNA virus with a viral enzyme termed reverse transcriptase which allows it to make a DNA copy of its own RNA genetic material. Once the viral

RNA genetic core becomes DNA it can be incorporated into the host T-cell. The clinical features of HIV are a consequence of the immune deficiency which occurs with the "takeover" of mainly helper T_4 cells. These are a subset of T-lymphocytes which have a receptor called CD4 protein to which the envelope glycoprotein of HIV will bind (Schoub, 1992). This results in the destruction of the T_4 helper cells as they have a large number of CD4 receptors on their surfaces. The HIV virus can also enter the genetic core of the lymphocyte and self-replicate. The T_4 helper cells play an important role in the immune system and it is their destruction that accounts for the immuno-deficiency effect of the virus (Miller and Bor, 1988). The HIV virus also displays an affinity for cells in the brain and spinal cord, resulting in neurological impairment (Eloff, 1988).

Another type of lymphocyte, termed T_8 or "suppressor" cells, deactivates certain immune responses. The ratio of T_4 to T_8 (helper to suppressor) cells are taken as indices of immune system integrity. In patients with AIDS-related illnesses the ratio of helper to suppressor cells is frequently reduced. In other words, HIV incapacitates and destroys the helper cells that activate the immune system, leaving intact the suppressor cells that decelerate immune system response. Reduction of helper cells or a reduced T_4:T_8 cell ratio can predict deterioration in the health of persons infected with the virus (Kelly and St.Lawrence, 1988).

5. Consequences of HIV infection

The HIV virus is present in the blood, semen and other bodily fluids of an infected person. If another person is exposed to these bodily fluids, he or she may also become infected. The virus is clinically identified by the presence of serum antibodies which develop some three weeks to three months after a person has been exposed to the virus (Miller and Bor, 1988). Although often found in high quantities, the antibodies appear to be totally incapable of combatting the virus (Eloff, 1988; Schoub, 1992). Once these antibodies have been identified the person is then said to be HIV positive, antibody-positive or seropositive.

The long-term consequences of HIV infection are difficult to predict with any certainty. As AIDS is a relatively new illness most longitudinal studies are still in progress (Kelly and St. Lawrence, 1988). These are complicated by the fact that the incubation period of the virus after initial exposure may be as long as fifteen years (Eloff, 1988). Along with studies of the virus and its related illnesses the investigations into behavioural, constitutional and other co-factors which may contribute to putting an individual at a higher risk for infection are still incomplete (Kelly and St. Lawrence, 1988). In addition, perplexing discoveries related to AIDS continue to confuse the picture. For example, at the Eighth International AIDS conference held in Amsterdam in July 1992, scientists reported cases of people who have an AIDS-like condition but have not been found to be infected with HIV (Time, August, 1992).

Nevertheless, a general consensus exists concerning the

usual clinical picture of HIV infection and its variations. While figures vary due to difficulties in statistical prediction, it appears probable that about 5% to 20% of HIV positive people will develop AIDS after five years of being infected (Kelly and St. Lawrence, 1988). A larger proportion of infected people will develop clinical symptoms of illness related to immuno-suppression but not of one of the opportunistic diseases associated with full blown AIDS. These illnesses have been placed under the rather imprecise diagnostic umbrella termed "AIDS-related complex" (ARC) disorders (Kelly and St. Lawrence, 1988).

By far the majority of HIV positive people remain asymptomatic for variable lengths of time, showing no signs of detectable illness resulting from immuno-suppression. While more pessimistic predictions suggest that all infected people will succumb to AIDS after about fifteen years at most (Eloff, 1988), Kelly and St. Lawrence (1988) point out that because AIDS has been researched for only a brief time, it is possible that some people remain asymptomatic their whole lives and are only carriers and potential transmitters of the virus.

6. Transmission and Risk factors

Transmission of HIV occurs when the blood or semen of an infected person makes contact with the body fluids of another person thus allowing the virus access. Several groups of people are particularly at risk. These include haemophiliacs and other transfusion recipients. However, all blood donated for transfusions is now screened for HIV making this risk minimal (unless the blood has not yet seroconverted). Another group particularly at risk are intravenous (IV) drug users who share needles which may have blood traces containing the virus. HIV infected women who become pregnant can infect their babies either prenatally through viral exposure via the mother's bloodstream or through viral exposure during delivery (Eloff, 1988).

By far the most common mode of transmission is sexual transmission, which puts every sexually active person at risk. As stated previously, the gay male community in particular has been seriously afflicted. Studies of risk behaviour among the gay male community, who are the focus of this study, have identified the following major risk factors:

6.1. Number of sexual partners

In the early stages of the epidemic gay men were warned that large numbers of sexual partners could place them at higher risk of exposure. However, as more people are now infected it may take far fewer sexual encounters (perhaps only one) before a person meets another who is HIV positive (Crewe, 1992; Kelly and St. Lawrence, 1988).

6.2. History of sexually transmitted diseases

A person who has previously contracted sexually transmitted diseases (STD's) such as syphilis, gonorrhoea, hepatitis, cytomegalovirus, mononucleosis and certain intestinal parasitic diseases, may be more likely to develop AIDS. This has been postulated to be the result of the interactional effects of HIV with those other infections. Alternatively, gay men who contract STD's usually do so through sexual activities which also permit the efficient transmission of HIV (Kelly and St. Lawrence, 1988). Thus a history of STD's may be described as an AIDS risk predictor.

6.3. Substance use history

The use of certain substances has been identified as a risk factor. Particular attention has been given to amyl, butyl and isobutyl nitrites ("poppers"). Originally used therapeutically for relief from angina pectoris, in the 1970's amyl nitrites became available in nonprescription form and were used by some members of the gay community as inhalants to enhance sexual pleasure. Amyl nitrites are "vasodilators that produce transient hypotension, flushing, lightheadedness and anaesthesia when inhaled" (Kelly and St. Lawrence, 1988, p.26). As the use of amyl nitrites became popular just prior to the AIDS outbreak, some researchers thought there was a link, especially when some studies suggested that nitrite usage was associated with T-cell abnormalities. However, this link appears to be unfounded. While the physiological risk potentiating factors of amyl nitrite cannot be ruled out entirely and merit further consideration, it

may be that its major role in AIDS etiology is behavioural rather than chemical. The use of amyl nitrite is especially common among men who engage in receptive anal intercourse so the correlation between AIDS and amyl nitrites may simply be that men who engage in high risk sexual activity often use recreational drugs. It must also be noted that increased blood flow and vasodilation following nitrite inhalation could afford an increased opportunity for HIV entry (Kelly and St Lawrence, 1988).

The use of alcohol, marijuana and other drugs increase the probability of people engaging in high risk sexual activities as their judgement may be affected negatively. They may fail to appreciate the risks to which they are exposing themselves as their anxiety levels are reduced (Evian, 1992). Studies show that gay men who have safer sex are less likely to use chemical substances before or during sex (Kelly and St. Lawrence, 1988).

6.4. High risk sexual practices

Any sexual activity which permits access of HIV to the bloodstream carries the risk of infection. By far the most risky practice is unprotected anal intercourse (Evian, 1992). During anal sex small rectal tears may allow the semen-borne HIV access to the bloodstream. While the receptive partner has been shown by many studies to be more at risk, the insertive partner may also be exposed to the virus due to his contact with his partner's blood and body fluids (Evian, 1992; Kelly and St. Lawrence, 1988).

Oral-anal contact ("rimming") and insertion of the fingers or whole hand into the partner's rectum ("fisting") carries a

high risk for both partners. In addition the use of sex toys such as dildoes which are inserted into the rectum and then shared with a partner is also considered risky (Kelly and St. Lawrence, 1988).

Most studies have not found a strong, consistent association between oral-genital contact and HIV infection but there are several reasons to believe that this sexual practice, especially fellatio, also presents a risk. Most subjects in previous studies participated in a wide range of sexual activities so it was nearly impossible for researchers to determine the discrete sexual activity during which transmission occurred. Further, oral-genital contact, especially to orgasm, could allow the virus access to the bloodstream if the receptive partner has cuts, abrasions, cold sores, periodontal disease, or other blood entry routes in his mouth. Thus oral-genital contact should be considered a possible means of HIV transmission (Evian, 1992; Kelly and St Lawrence, 1988).

Although the HIV virus has been detected in saliva there is no evidence to suggest that the virus may be transmitted through saliva exchange which occurs during "deep" kissing. This may be because the virus is rarely present in saliva or found in only very low titres (Kelly and St. Lawrence, 1988). Furthermore, if such transmission was possible the prevalence of HIV disease would be staggeringly high.

Other sexual activities between men that do not entail fluid exchange or access to the bloodstream, termed "safer sex"[3], are

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[3]"Safe sex" is no longer considered to be an adequate term as no sexual activity can be guaranteed to be completely safe.

low in transmission risk. These would include mutual masturbation, massage, rubbing, frottage, sex with condom usage and similar practices (Evian, 1992). However, small cuts and abrasions on the skin surface could allow entry to the virus so these activities still present a risk although it is minimal. The only way to be absolutely assured of no risk is to either engage in no sexual activities, to have sexual interaction which involves no body contact with another person (e.g. phone sex, masturbating to pornography), or to maintain a sexually exclusive relationship where both partners know they are HIV negative (Kelly and St. Lawrence, 1988).

7. Treatment of HIV and AIDS

There is no known cure for AIDS. Scientists are presently attempting to discover a vaccine for the virus but even if this were available it would be many years before the virus is adequately contained. The management of HIV infection involves the care of people with chronic progressive viral infections. The treatment of advanced diseases characteristic of severe immune dysfunction are only part of the spectrum (Karstaedt, 1992). Health workers also have to help the person with HIV disease to improve his or her sense of well-being and maintain self-sufficiency and productivity for as long as possible. Education and psychosocial support are also important factors needed to achieve these goals (Karstaedt, 1992).

Current medical management would include adapting appropriate treatment to the stage of present immune system dysfunction, prevention of opportunistic infections, early

recognition of complications of immune deficiency, and antiviral therapy to improve the immune deficit or delay its progression (Karstaedt, 1992)

Various antiviral medications are being used at the moment. Those most preferred by South African health workers include zidovudine (Retrovir) and dideoxyinosine or ddI (Videx). They reduce the ability of HIV to spread to uninfected cells. However, these drugs do have serious side effects and may also be prohibitively expensive (Karstaedt, 1992).

The most popular drug is azido-deoxythymidine (AZT) which does impede progress of HIV disease for a period of time and has been shown to significantly lessen the frequency and mortality of PCP episodes (Kelly and St. Lawrence, 1988).

Because available treatment can at best only postpone HIV-related illnesses or retard their progression, the only method of halting the AIDS epidemic is to prevent viral transmission occurring by encouraging people to adopt safer sex and other protective techniques (Temoshok and Brown, 1990). How people react to AIDS education campaigns and the efficacy of such campaigns will be examined in the following chapter.

CHAPTER 3

LOCUS OF CONTROL AND THE HEALTH BELIEF MODEL

This section will examine theories put forward concerning health behaviour, and use these in an attempt to explain why some people are still not taking protective measures in spite of being aware of the risk of exposure to the HIV virus. An important factor in decision-making is the notion of personal control. This is best conceptualised in terms of the locus of control construct (Rotter, 1966). The Health Belief Model (Becker, 1979; Kirscht and Joseph, 1989), a current model which describes the determinants of health behaviour, will also be discussed as it provides an ordered framework for the process of decision-making with regard to health.

1. AIDS Prevention Strategies

AIDS is a communicable disease which can be spread, among other ways, by sexual contact and, as no curative agent has yet been developed, the principal means of intervention has been an emphasis on the prevention of viral transmission. To this end the medical profession has advocated that people alter their social and sexual lifestyles to exclude high-risk behaviours (Kelly and Murphy, 1992). The term "safer sex" was coined to describe those sexual activities which would provide a minimal risk of viral transmission. These would include any sexual practices which do not allow the virus any access to the bloodstream.

The first step in the AIDS intervention campaign was to inform the public of the danger of HIV infection and to provide them with the awareness of how to protect themselves against it. Clear, accurate information concerning HIV transmission was believed to be an effective way to reduce public anxiety, especially after the panic caused by sensational media reports. It was also intended to equip people with practical methods to combat the spread of the virus (Bauman and Siegel, 1990). Information concerning safer sex practices has been disseminated by means of the media, brochures, lectures and counselling.

It was assumed that the fear of contracting AIDS would be enough to encourage people to protect themselves. This "common sense" assumption has proved to be false (Hobfoll et al., 1990). While many gay men have indeed altered their behaviour, a significant number are still engaging in high risk behaviours and some have even increased them (Fitzpatrick, McLean, Boulton, Hart and Dawson, 1990; Kotarba and Lang, 1986; Shurink and Shurink, 1990).

2. Gay men and behaviour change

It is difficult to assess to what extent gay men have altered their sexual behaviour directly in response to the AIDS crisis. Since the advent of AIDS many reports have been made which proclaim that an overwhelming number of gay men are changing their behaviour (Kelly and Murphy, 1992; Kirscht and Joseph, 1989). However, Kotarba and Lang (1984) have challenged the assumption of these media reports that most gay men are in fact changing their lifestyles as a direct result of the threat

of HIV infection rather than other factors. They give the following arguments for holding this view:

Firstly, the media have relied heavily on gay organization leaders for "expert" opinion on the impact of AIDS on the gay community. The ideological and political position of gay organizations, which is to promote safer sex and preventive health care, may have become confused with actual changes in sexual behaviour.

Furthermore, Kotarba and Lang (1986) believe many gay men have adopted a more conservative lifestyle due to the current cultural influence which advocates more healthy lifestyles. Men who are concerned about aging often become more fitness-oriented. They may also believe they are losing their desirability and cease searching for sexual partners. Moving to a new geographical area may mean less opportunity for making sexual contacts. All these changes, when reflected in lifestyle change surveys, could be mistaken for changes in response to AIDS as a cue to action. Furthermore, few systematic studies exist to substantiate the assertion that gay men have altered their behaviour directly in response to AIDS (Kirscht and Joseph, 1989).

Another problem occurs with those studies which depend on data gathered from self-reports on personal behaviour change as these may not be reliable. For example, many gay men do become afraid when AIDS is the focus in the media (Shurink and Shurink, 1990) and report truthfully that they have terminated unsafe practices. On World AIDS day, for example, there are many programmes and articles concerning AIDS which may create anxiety about the issue. However, when media coverage on AIDS is scant,

the same men may experience a false sense of security and become careless.

Inaccurate self-reporting may also be due to response set, where people will give what they believe to be socially desirable responses (Strickland, 1978). Regardless of the reasons, many gay men will state that they have altered their behaviour but, as McKusick (Kotarba and Lang, 1984) discovered, they may continue their high-risk behaviour unchanged or slightly changed, or even increase it.

To obtain meaningful results, researchers need to gather data from a wide population. At the present time, however, it is difficult for researchers to obtain the cooperation of the gay community when recruiting subjects. Many gay people are highly suspicious of researchers as they are mistrustful of how the results of the study will be utilized; it is feared that such research may be used to provide more evidence which might propagate homophobia or entrench a negative or discriminatory attitude towards gay people (Watney, 1990).

If the above arguments are valid, it may be assumed that many men are changing their behaviours for reasons other than AIDS prevention. It is also equally clear that a significant number of gay men have not changed their sexual behaviour at all. This raises the question of how efficacious AIDS prevention strategies actually are. Kelly and Murphy (1992) have noted the paucity of prevention outcome research which again makes it difficult for AIDS prevention workers to establish how substantiated behaviour changes were produced. For an AIDS prevention campaign to be useful, researchers need to be sure

that it does motivate people to change behaviour, and, where behaviour changes are seen to occur, it must be clear that they are a direct result of the campaign. For this reason, it is important that prevention campaigns take into account all the psychosocial aspects which might influence behaviour change and have been overlooked so far (Kelly and Murphy, 1992). The field of health behaviour attempts to identify these factors which play a direct role in influencing people to change their behaviour to protect and/or enhance their health.

3. Health Behaviour

Researchers now face the perplexing question of why it is that some people who are fully aware that certain behaviours will expose them to a risk which is potentially life-threatening continue to expose themselves to it anyway. Shurink and Shurink (1990), in their South African survey, found that although 72.2% of their respondents had indicated that the AIDS scare had influenced them to practice safer sex, many men reported continued participation in unsafe sexual activities. This was despite the researchers' finding that the respondents had a high level of knowledge about AIDS (Shurink and Shurink, 1990).

In order to understand the factors involved in personal health protection, researchers have investigated the field of health behaviour in an attempt to explain how people respond to health risks. Health behaviour may be defined as:

> "any activity undertaken by a person believing himself (or herself) to be healthy for the purpose of preventing disease or detecting it in an asymptomatic

way" (Kasl and Kobb as quoted by Becker, 1979, pg. 240).

Many of the leading causes of death today are directly related to the absence of health protective behaviour (Becker, 1979). As biomedical breakthroughs led to a reduction of infectious diseases (e.g. influenza, whooping cough, rubella, polio), attention was shifted to those diseases such as heart disease, cancer and strokes which have become more frequent. The evidence suggests that it is the "behavioural pathogens" (personal habits and lifestyle behaviours) which put people at risk for these diseases rather than "external pathogens" (infectious agents, nutritional deficits) (Becker, 1979). The HIV virus is an infectious agent and thus an external pathogen. However, it is the behavioural pathogens (including high-risk sexual activity) which put people at risk for infection. In the absence of a vaccine, the extinction of behavioural pathogens is the only means of prevention at present (Becker, 1979; Evian, 1992).

Though education alerted gay men to the facts and dangers of AIDS, early research showed that education alone was not always effective. The "common sense" causal link between fear of contracting AIDS and a subsequent change of sexual lifestyle was seen to be obvious by the media. However, fear is not necessarily a motivating factor for behavioural change. People still smoke, eat unhealthily or fail to wear their seat belts in spite of widespread advertisements concerning the hazards they might encounter as a result (Becker, 1979). Furthermore, as previously

mentioned, where gay men were seen to be changing their lifestyles, this was not necessarily in response to an awareness of AIDS (Kotarba and Lang, 1986). Kelly and Murphy (1992) state that the early "common sense" and pragmatic interventions were understandable as AIDS spread so quickly and rapid mobilization of prevention resources were required. However, as the complexity of HIV prevention work has increased, these interventions are no longer adequate and other aspects must be considered (Kelly and Murphy, 1992).

An area of increased interest is the connection between health behaviour and the belief that an individual person may have concerning his or her ability to alter the environment.

3.1. Health Behaviour and Personal Control

A major focus of this study will be to examine the particular belief a person may hold concerning his or her personal control over his or her life, and the relevance such beliefs have with regard to the adoption of health-protective strategies. Personal control refers to the beliefs a person holds about the extent to which he or she can alter the environment or him or herself to render events more pleasant or less aversive (Rosolack and Hampson, 1991). Within Social Learning Theory, personal control can be divided into distinct beliefs. Bandura (1986), the major social learning theorist, describes two forms of personal control: self-efficacy and outcome expectancy. Self-efficacy is the belief that one can perform a specific behaviour in a given situation, while outcome expectancy refers to the belief that the behaviour will produce the desired outcome.

4. Locus of Control

A major assumption of AIDS education programmes is that when people are provided with information on health protective behaviour, they will perceive a link between practising such behaviour and the subsequent reduced risk to themselves of HIV infection (Bauman and Siegal, 1990). In other words, they will see a causal relationship between their direct actions and the positive outcome resulting from them. Such persons have a sense of personal control over their lives and a belief that they can have an effect on what happens to them (Kotarba and Lang, 1986).

However, taking into account that many people do not engage in health protective behaviours, it may be postulated that a number of individuals do not perceive outcomes to be a result of their own direct actions. They may attribute such outcomes to forces outside their control (Phares, 1976). For example, in the case of AIDS, HIV infection may be ascribed to bad luck, fate or divine punishment rather than to unsafe sexual practices.

While people who do perceive the link between their behaviour and its outcomes can and do benefit from basic AIDS information-giving approaches, those who do not require further intervention. Persons with the belief that they lack control over their own lives need to be identified and AIDS workers need to develop appropriate interventions which will help them discard such potentially hazardous beliefs (Kotarba and Lang, 1986).

The above dimensions of the perception of personal control have been discovered, defined and studied by social learning theorists. A person's locus of control refers to the source from

which a person believes control emanates to produce certain outcomes (Phares, 1976). Rotter (1966, p.1) gives the following succinct description of locus of control:

> "When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or an unpredictable because of the great complexity of the forces surrounding him ..., we have labelled this a belief in external control. If the person perceives that the event is contingent upon his own behaviour or his own relatively permanent characteristics, we have termed this a belief in internal control."

The dimension of locus of control needs to be contextualised within social learning theory in order to clarify its evolution. Social learning theory is the theory of how choices are made by people from a variety of potential behaviours available to them. Its unit of investigation is the interaction of the individual and the environment, along with the specific meanings attached to the environment resulting from the subjective learning history or experience of the individual. It emphasizes learned social behaviour rather than unlearned, biological determinants (Phares, 1976).

Behaviour is understood to be goal-directed in that people strive to attain or avoid certain aspects of their environment. An event or stimulus is identified as a positive reinforcement

if behaviour is directed towards it and a negative reinforcement if behaviour is directed away from it. Furthermore, the occurrence of a behaviour is determined not only by the nature of reinforcement or the importance attached to the goal but also by the person's anticipation or expectancy that the behaviour will lead to the attainment of the goal. Expectancies depend upon the degree of failure or success of the outcomes of the behaviour when it was previously performed (Bandura, 1986; Phares, 1976).

Using this theory it is possible to examine the decision-making process with regard to the adoption of health protective behaviour. A gay man confronted with the opportunity to have sex is faced with the choice of doing it "safely" or "unsafely". He knows that if he should have unsafe sex he runs the risk of contracting a lethal infectious virus (negative reinforcement). He knows that if he has "safer sex" he may enjoy the contact without the anxiety related to pctential infection (positive reinforcement). His expectancy is that safer sex will protect him because he has learnt this from information he has absorbed from campaigns and from his experience of not falling ill. Because behaviour is directed towards positive reinforcement (Phares, 1976) it can be confidently predicted that there is a high probability that he will choose to use a condom to ensure that he continues to remain healthy while enjoying sex. In order for AIDS education campaigns to help such a man to protect himself, they have only to provide adequate information on HIV transmission and techniques to avoid it.

However, the situation becomes far more problematic when the person concerned sees no connection between his behaviour and its outcome.

4.1. Characteristics of the External Locus Of Control

Persons with an external locus of control (externals) have been identified as sharing a number of common characteristics. Frequently, externals possess very little information relating to the achievement of various goals. Furthermore, they make little attempt to seek such information. As they do not believe their behaviour is the effective agent in achieving rewards, it makes little sense to them to expend effort in acquiring information normally considered relevant in dealing effectively with one's world (Phares, 1976; Strickland, 1978). This is a matter of great concern with respect to HIV infection. Externals may not see the point of gathering or attending to information concerning AIDS and health protection practices.

Externals tend to be very susceptible to influence, particularly when it is perceived to be coming from someone with status. However, a person will still not see the outcome of his or her behaviour as related to his or her own actions (Phares, 1976). Thus a man at risk of contracting HIV may change his behaviour temporarily at the exhortation of a medical authority but fail to maintain the behaviour when the influence is withdrawn. Of more concern is the man who is persuaded to engage in risky practices by friends who have high status in his eyes. Because they are reactive rather than proactive, externals are often unassertive.

Externals are not prone to delaying gratification in any premeditated fashion. This prevents them from organizing or planning their lives, which requires delaying reinforcement. Again, it would make no sense to do so to a person who does not believe he or she has any control over his or her reinforcements (Phares, 1976). In the context of AIDS, externals may engage in instant sexual gratification, being unable to plan forward and weigh the potentially negative consequences of unprotected sex.

Externals may evidence a curious mixture of anxiety and calmness. At times they may experience uneasiness at realising how ill-equipped they are to deal with such an overpowering world. At other times they may relax as if realizing the futility of getting upset when everything is beyond their control anyway (Phares, 1976).

This mixed reaction can also be found in many persons with an external locus of control in response to HIV infection. An anxiety concerning the ease with which a person could become infected is contrasted with the resigned attitude that there is nothing that can be done to prevent it (Shurink and Shurink, 1990).

4.2. Characteristics of the Internal Locus of Control

Persons with an internal locus of control (internals) are more active in mastering their environment than are externals. As a result they are also more competent than externals when managing their health. This has been confirmed by a number of experiments with many different population groups in a variety of situations (e.g. Adams et al.,1990; Rosolack and Hampson,

1991). Internals' ability to cope better seems to be a result of superior cognitive processing. They are better at acquiring information, seeking more information until they are satisfied, retaining information and utilizing it (Phares, 1976). Strickland (1978) cites research on patients hospitalized with tuberculosis. Those assessed as internals knew more about the disease and collected more information on health maintenance than the externals. Another study found that internals were more likely to be non-smokers or to have stopped smoking, adding credence to the belief that internals are more likely to take action to improve their health, particularly when faced with evidence that needed changes would result in better physical functioning (Strickland, 1978). The benefits accrued in the gathering of information on HIV transmission and health protective behaviour are obvious.

Just as internals are more effective in controlling their world, they are also more effective in controlling themselves. This self-control suggests that internals are more likely to be cautious and to engage in less risky behaviours (Phares, 1976). Such a characteristic again enables internals to protect themselves more adequately from the risk of HIV infection than externals. The positive aspect of self-control was highlighted in a study by Perkel (1990), who found that an internal locus of control may mediate the stressful effects of political detention without trial. The South African detention process commonly included indefinite solitary confinement and physical and psychological abuse, all of which often resulted in the detainee developing Post-Traumatic Stress Disorder. Internals appeared to

retain a sense of inner control which helped them to better withstand the realistic impotence imposed on them by detention (Perkel, 1990).

Other studies confirm that internals as opposed to externals are more likely to assume responsibility for their health. Strickland (1978) has reviewed the research in this area and her work is still considered to be the most comprehensive (Rosolack and Hampson, 1991). She quotes several studies which show that internals are more likely to have received influenza inoculations, report greater use of seat belts, are more likely to engage in preventive dental care, hold more positive attitudes towards physical fitness and cardiovascular fitness, are more successful in weight-loss programmes, and are more likely to practice birth control (Strickland, 1978).

The above research further suggests that internals are less susceptible to control and influence from others. They tend to accept information only when they see merit in it (Strickland, 1978). Because they believe their actions can have an effect, they tend rather to use their competencies to become originators of social action (Phares, 1976). Persons with HIV or AIDS who become political activists for people like themselves, and refuse to passively accept what others may define as a "death sentence" (Watney, 1987), are likely to be internals.

4.3. Origins of Locus of Control Beliefs

It is now clear that externals would seem to be at a greater disadvantage than internals when it comes to engaging in health protective behaviour in response to the threat of HIV infection

(Kotarba and Lang, 1986). A logical solution in terms of intervention strategies would be to help externals become more internal. To attempt this it is first necessary to understand how such beliefs develop. As Phares (1976) notes, in order to be in the most advantageous position to change locus of control beliefs, the researcher must have an understanding of their developmental origins.

Unfortunately the antecedents of locus of control beliefs have not been researched nearly as extensively as the consequences of such beliefs. However, the following conclusions have been supported with regard to early parent-child interactions. Chance (1965) found that children's internality was associated with mothers' scores on the Parental Attitude Research Instrument (PARI), suggesting that parental child-rearing practices that are warm, protective, positive and nurturant tend to produce children with an internal locus of control (cited in Phares, 1976). Similar conclusions were reached in studies by Katkovsky, Crandall and Good (1967), Shore (1967) and Davis and Phares (1969), all of which are cited in Phares (1976). Where the degree of consistency of discipline is constant and predictable, a further foundation is laid for the development of an internal locus of control. However, too much nurturance or consistency of reinforcement which is seen as coming from "powerful others" could lead to an external locus of control (Phares, 1976).

In terms of social influences, there is evidence to suggest that persons in groups with restricted access to significant power or material advantages often develop external orientations. In America, blacks and various minority groups seem much more

external than whites. Lower socioeconomic groups (which often include minority groups) also tend towards externality (Phares, 1976). These results can be inferred to apply to South African blacks and minority groups, perhaps even more so taking into account the infamous history of repression to which the South African government has subjected those who have disagreed with its policies. Gay men too form a minority group which is divorced from power by the ruling ideologues (Gough and Macnair, 1985). If they too have tended to develop predominantly external orientations, their political oppression might well have been one of the contributing factors to their being a "high-risk" group.

4.4. Changes in Locus of Control Beliefs

It has been postulated that those persons with an external locus of control are more likely not to respond to AIDS education programmes, to take health risks and to be fatalistic about the potential of HIV infection (Kotarba and Lang, 1986). An obvious solution would be to help such persons gain a more internal locus of control in order to empower them to protect themselves. Perkel (1990) has emphasized the modifiable nature of locus of control, since it is not typological and unchangeable in form and varies across different contexts.

Locus of control beliefs can be altered by a range of conditions. These include factors that accompany age changes, conditions that affect a subject's certainty that control can be exerted, world or national events, special training programmes, and a variety of therapeutic techniques (Kelly and Murphy, 1992; Phares, 1976; Strickland, 1978). Of interest to psychologists in

particular would be those therapeutic techniques which might help people to develop a more internal orientation. These might be included in individual therapy, behaviour modification and group therapy. The diagnostic arsenal of psychologists can also be utilized in the identification of locus of control orientations. Such a diagnostic and therapeutic effort would not only apply to a clinical realm but also to school settings, industrial organizations, etc. (Phares, 1976). The existing data should also be used to inform future AIDS awareness campaigns. For example, the stress on personal control should be emphasized in all media messages.

Several researchers have noted that there often exists a schism between research and application (Kelly and Murphy, 1992). In accordance with this view, Phares believes the whole field of psychology should move in the direction of application:

> "Surely locus of control can be applied effectively to enhancing efforts of individuals to cope with many current problems. Knowledge of individuals' locus of control beliefs may tell us how best to reach them or convince them to initiate coping efforts" (1976, p. 175).

It is the intention of this study to use the application of locus of control in an attempt to help gay men deal with the current problem of HIV/AIDS.

4.5. Power and Control

It seems that one major component of power must be an internal locus of control. People who seek power and control over

their environment or over those people in their environment must believe in the efficacy of their own behaviour. In order for people to defend their individual freedom they require power (Phares, 1976).

However, in cases where the power of certain groups depends on the powerlessness of other groups, there may exist an attack upon autonomy where it does not serve the interests of the ruling groups. Such an analysis of power differentials and the maintenance of power at the expense of the freedom of others is the concern of politics (Gough and Macnair, 1985). The politics of power with regard to gay men as an oppressed and often powerless group and the subsequent relation of such dynamics to the area of AIDS was mentioned in Chapter 1.

Whereas a person's locus of control can be viewed as an internal factor which influences health behaviour, there are, in addition, many external factors which can also affect health beliefs and behaviour. These are best understood by using a conceptual model, such as the Health Belief Model.

5. The Health Belief Model

Researchers of health behaviour have developed a number of conceptual models to investigate the factors influencing the adoption of preventive health practices. Preventive behaviours have the goal of improving or maintaining health, fitness or strength but are not targeted at a present illness, injury or unusual health condition (Rosolack and Hampson, 1991). The most widely used of these models is the Health Belief Model (Becker, 1979; Kirscht and Joseph, 1989).

The Health Belief Model (HBM) was initially proposed by Rosenstock (1966) and revised by Becker and Maiman (1975). It examines various dimensions that may influence the decision-making process related to the adoption of health-related behaviours and can thus generate hypotheses for investigation (Becker, 1979). The HBM has been described as the cognitive model most widely used in studies of health behaviour and compliance (Kirscht and Joseph, 1989).

The Health Belief Model suggests that a person's subjective readiness to take action and engage in health-protective behaviours is a function of several factors (Becker, 1979). The model emphasizes the important role played by individual beliefs (Becker, 1979). It is important to note that such beliefs are not always based on ignorance or misconceptions of medical facts but are constructed during a person's lifetime and highly influenced by the cultural and social structures surrounding him or her (Shurink and Shurink, 1990).

It is thus essential for researchers in the AIDS education field to examine the factors which influence the construction of certain perceptions and beliefs concerning HIV infection, especially when they are inaccurate and thus put a person at risk for contracting the HIV virus (Kirscht and Joseph, 1989).

The HBM takes into account beliefs concerning personal control and links them directly to health-related behaviour (Rosolack and Hampson, 1991). It examines the beliefs a person has about his ability to perform health-protective behaviours (self-efficacy) and about the impact such behaviours may have on preventing the illness (outcome expectancy). As mentioned

previously, the construct of locus of control was also developed out of the social learning theory dimensions of self-efficacy and outcome expectancies, and thus is theoretically linked to, and complements, the HBM (Rosolack and Hampson, 1991).

The following components of the Health Belief Model contain the factors which are believed to play a role in compliance with health protective behaviour (Becke , 1979): perceived susceptibility or vulnerability to developing a health problem: perceived severity of the illness; perceived benefits and costs of behaviour change; and modifying factors.

Several studies of these components hypothesized by the Health Belief Model have produced consistent results which tend to support the model (Becker, 1979). Other studies, however, have failed to establish significant links between the components and subsequent behaviour change (Kirscht and Joseph, 1989). Nevertheless, it is generally considered to have useful features and has been utilised by Kirscht and Joseph (1989) to analyze health behaviour related to AIDS prevention.

Each of these components will now be examined in relation to the adoption of safer sex practices and lifestyle change by gay men in response to the AIDS crisis:

5.1. Perceived susceptibility or vulnerability

To acknowledge the need for health protective behaviour, a person must first perceive that he or she is susceptible or vulnerable to developing a particular health problem (Becker, 1979; Kirscht and Joseph, 1989; Shurink and Shurink, 1990). Data from various studies a- essing individual perceptions of risk of

contracting or dying from a range of diseases including diabetes, cancer, heart disease, stroke, pneumonia, venereal diseases and others all confirm that perception of vulnerability is directly associated with the adoption of preventive health practices (Becker, 1979; Bauman and Siegel, 1990). However, these studies also make the important point that people tend to systematically underestimate the degree to which they are at risk (Bauman and Siegel, 1990).

It follows that while all men who practice unsafe sex are at risk, many may not perceive themselves to be at risk. This has been confirmed by research of 153 gay men in New York City by Bauman and Siegel. They investigated the estimations the men made of the level of risk of their sexual behaviour. The 39 men who only had safer sex accurately estimated that they were at minimal risk. The 48 men practising low-risk sexual behaviour similarly rated their risk accurately. However, of the 66 men who participated in risky sexual practices, 55 did not tend to rate the level of risk of their behaviour as higher than the low-risk group. Stated differently, 83% of the gay men in the sample who engaged in at least one high-risk behaviour in a typical month rated their behaviour as relatively safe. They were thus severely underestimating the level of danger inherent in their behaviour and were likely to be poorly motivated to change it. In a similar study in London, Fitzpatrick and his colleagues found that of their sample, 68% of men having unprotected receptive anal sex with a regular partner and 78% of men having unprotected receptive anal intercourse with a non-

regular partner did not regard their behaviour as at all risky (Fitzpatrick et al., 1990).

A number of theories have been put forward to explain why certain people tend to misperceive their susceptibility to health risks:

The illusion of immunity: Bauman and Siegel (1990) concluded from their study that many gay men misperceive their vulnerability to infection. Most people tend to believe they are "invulnerable", that negative events are less likely to happen to them than to others who are just like themselves. This "wishful thinking" may serve as a defence against the anxiety which would result from the more realistic view that everyone is continually at risk of exposure to harmful events (Bauman and Siegel, 1990). Yalom (1989) speaks of the illusion of "personal specialness", an ongoing belief that one is somehow invulnerable or inviolable ("It won't happen to me"). A study was conducted on communities living in areas where there was a high possibility of major earthquakes occurring (Lehman and Taylor, 1987). The researchers found that when people perceived a situation as uncontrollable, they preferred to manage their emotions rather than respond with direct confrontation. Frequently, they used denial and manifested the unrealistic optimism described by Strumpfer (1976) as the "illusion of immunity".

Cognitive distortions: Cognitive distortions, such as selective recall and faulty information processing can also contribute to misperception of susceptibility. For example, people often tend to judge their risk in terms of stereotypes. They may have a negative stereotyped idea of the kind of person

who gets AIDS (for example, that only people who have multiple sexual partners, look ill, are underweight or do not exercise, contract AIDS). They may then compare themselves to this stereotype and see themselves as deviating greatly from it. Thus they falsely conclude themselves to be at low risk (Bauman and Siegel, 1990). It must be noted that such negative stereotypes are strongly reinforced by the media (Watney, 1987).

Research has shown that some gay men may harbour certain beliefs that they are safe from risk which, under closer scrutiny, are found to be invalid. For example, some men report that they have cut down the number of sexual partners they have, or report that they have stopped visiting "pick-up" areas and thus believe themselves to be safe from HIV exposure. However, these men may continue to participate in unsafe sex with men who themselves have not altered their behaviour. This faulty belief was revealed in a study by Bauman and Siegel (1990). As noted earlier, it only takes one unsafe sexual contact to expose a person to risk. People may also take precautions which they erroneously believe will protect them from infection. Bauman and Siegel (1990) identified three common ineffectual health activities: inspecting one's partner for lesions, showering before sex, showering after sex.

Another false perception held by some gay men is that when a partner's HIV status is unknown, sex with a regular partner presents a lesser risk. The study by Fitzpatrick et al. (1990) found that gay men tended to participate in more unprotected sexual activity with regular sexual partners than with non-regular sexual partners. This may also suggest that men who are

in an ongoing relationship may believe they are relatively safe. Fitzpatrick et al. (1990) found that the highest rate of unprotected anal intercourse occurred in the group of men who reported being in exclusive regular relationships - and 53% had not had an HIV test.

Management of Anxiety: Under conditions of high stress or threat, denial is often used as a defence against unmanageable anxiety. This can be positive when it is necessary for someone to regulate emotional distress, thus maintaining homeostasis and permitting the person to marshal coping resources (Hobfoll et al., 1990). However, Bauman and Siegel (1990) state that gay men have to deal with an apparently contradictory task. They must experience a certain level of anxiety in order to be motivated to alter their sexual behaviour. However, they must do this without resorting to the defence mechanism of denial as this would interfere with the adoption of health protective behaviour. As Bauman and Siegel (1990) describe the dilemma:

> "They can choose to adopt safer sex practices in order to protect their health; but first they must abandon denial of their high-risk status as a coping strategy, which, in turn, leaves them vulnerable to high levels of anxiety. If they manage their anxiety through denial, they undermine their ability to maintain the kinds of changes in their lifestyles that are necessary to avoid infection with the AIDS virus" (Bauman and Siegel, 1990, p.85.).

Bauman and Siegel (1990) found that their sample group of men who underestimated the level of risk of their behaviour were

manifesting low anxiety levels. This confirmed their hypothesis that the underestimation of the level of risk of one's sexual practices is, in part, an attempt to manage anxiety using denial.

It has been noted that extremely high levels of perceived susceptibility may lead to inhibiting anxiety. Thus, threat as a means to persuade people to adopt new health practices is not effective. But, as research by Hobfoll et al. (1990) has shown, behavioural techniques aimed at raising people's anxiety over their vulnerability will raise their motivation to attend to AIDS education material. Consequently, a certain amount of anxiety is necessary to motivate people to take health protective action. However, too little anxiety may not be a sufficient motivator while too much anxiety may overwhelm the person and result in denial (Bauman and Siegel, 1990) which inhibits action.

5.2. Perceived severity of the illness

For a person to be motivated to take preventive action he or she needs to perceive the potential illness as sufficiently severe (Kirscht and Joseph, 1989). Very few gay men have not perceived the seriousness of the AIDS crisis. Because it is a potentially fatal disease, the fear of AIDS in the gay community is almost universal. In their survey, Shurink and Shurink (1990) found that 71.1% of South African gay men in their sample rated fear of AIDS as their greatest concern. Apart from the obvious physical suffering wrought by HIV-related illnesses there are also other severe consequences. These include dealing with the stigma of being a person with AIDS, the tremendous financial burden when obliged to pay for treatment and hospitalizations,

and possible unemployment as a result of discrimination or inability to continue working (Miller and Bor, 1988). Furthermore, there may be a loss of autonomy as dependence on others for care increases, and a potential loss of friends, lovers or family members who are frightened off by the disease. Many gay men have not come out (i.e. revealed their gay identity) to friends, families or work colleagues and this, together with the revelation that they have AIDS, can lead to a crisis (Isaacs and McKendrick, 1992).

In terms of the HBM, even if a gay man perceives himself to be at risk of contracting an illness he may still not engage in health protective behaviour unless he foresees serious consequences from having the illness. While research conclusions are mixed, it seems that where persons perceive the possibility of severe consequences such as organic and/or social problems, they are more likely to comply with health protective behaviour (Becker, 1979). It must be emphasized that it is the person's perception of consequences which will be a motivating factor. For example, as asymptomatic carriers of the HIV virus often look and feel well for long periods of time, other gay men may not perceive the seriousness of being infected. A further aspect unique to AIDS is that there are vast areas of uncertainty in relation to the actual health threat. The consequences of HIV infection can range from immediate health deterioration to over a decade or more of asymptomatic status. Thus, judging the severity of HIV infection is difficult and this uncertainty can certainly affect health beliefs (Kirscht and Joseph, 1989).

5.3. Perceived benefits and costs

There needs to be a perceived positive cost-benefit ratio to motivate a person to act in order to change behaviour. The benefits of altering risky sexual behaviour must be seen to outweigh the costs involved. The benefit of remaining healthy and free from anxiety is obvious but these advantages may be clouded by other factors (Becker, 1979). Some of the barriers to compliance include:

Economic cost of following the health regimen: In contrast to other preventive health strategies (e.g. dental check-ups), this is low in relation to safer sex practices. The only cost involved would be in procuring condoms (which are often available free of charge at AIDS community centres), lubricants, and any other sex aids (Evian, 1992). The price of these products is minimal. Even if persons did not have the money for them, they could simply practice different sexual activities which do not require any equipment (e.g. mutual masturbation).

Duration of new health behaviour: Gay men need to continue safer sex practices until a cure for HIV disease is discovered and administered. As the discovery of a cure does not seem to be imminent, the duration required of new health behaviour appears to be indefinite. This may decrease motivation to continue safer sex practices.

Complexity of the regimen: The health protective practices should be as simple as possible. Informing oneself of safer sex procedures requires the attainment of a substantial amount of new information which may be confusing and difficult to understand for some men, especially those who are less educated and who are

unfamiliar with medical concepts.

Proscription and prescription of certain behaviours: People are more resistant to giving up usually pleasurable behaviours which are proscribed by their health regimens (Becker, 1979). In the case of AIDS it is unrealistic to expect gay men to give up sex. Sex is a biological motivation which also provides emotional satisfaction; thus it has physiological and psychological imperative (Watney, 1987). The very substance of social relating is often based on unconscious sexual motives. Sex can relieve anxiety, enhance intimacy and preclude loneliness. These powerful satisfactions cannot be replaced by non-sexual activities (Watney, 1987). Thus the emphasis has been on changing those sexual behaviours that place men at risk, and on prescribing new techniques. Some men have seen these as contributing to a decrease in sexual satisfaction.

Attitudes towards condom usage may also be a barrier to behaviour change (Kelly and Murphy, 1992). Historically, one of the advantages of gay sex has been the fact that contraception did not have to be considered with the result that condom usage is an alien concept to many gay men. The idea that condoms interfere with the enjoyment of sex, create embarrassment, interrupt the process of sexual arousal or are uncomfortable to wear may lead some men to disregard their use. Studies have shown that condom usage is directly linked to the absence of such negative attitudes. For example, a 1988 study found that men with the view that condoms did not interfere with sex tended to use them during high-risk sexual activities (Fitzpatrick et al., 1990).

Other pleasurable pursuits such as alcohol or recreational drug usage may impede judgement and are often also proscribed. Gay men may feel resentful about having these aspects of their lifestyles frowned upon and may misinterpret such exhortations to be another attack on the gay community rather than warnings for their own protection (Altman, 1986). Many people have noted that such distrust is realistic. The AIDS epidemic has often been employed to condemn those afflicted by the disease rather than challenge those people in positions of power who are not doing anything to stop it (Altman, 1986; Kramer, 1990; Shilts, 1987; Watney, 1987).

In summary, while the main payoff of adopting safer sex behaviour is to keep a potentially life-threatening illness at bay, many gay men will only perceive the practical difficulties and inconveniences of altering their lifestyles.

5.4. Modifying factors

Modifying factors include demographic, structural, attitudinal and interactional variables which may provide cues or stimuli to change (Kirscht and Joseph, 1989). The following include possible enabling and inhibitory factors which may influence a gay man to take action to protect his own health:

The doctor-patient relationship: A doctor who instils trust in his or her gay patient can provide powerful encouragement for health protective behaviour. However, gay patients often experience a "cultural gap" between themselves and non-gay doctors (Casper, 1986). Concerns about confidentiality with regard to health status and sexual orientation are high. Some

doctors may moralize about their gay patient's lifestyle, revealing homophobic attitudes, and so create distrust and distress. The typically expert role adopted by many doctors negates the possibility of a health programme being negotiated with the patient.

Furthermore, a doctor who lacks compassion may be unaware of and/or may fail to become better informed about the risk of infection his or her clients may face and thus is unlikely to influence ary behaviour change (Casper, 1986).

Social group conformity: As gay people are members of a group which experiences oppression, gay communities have found it essential to organize into political groups. Such groupings provide an arena for gay people to fight for political rights and recognition as well as provide a support base to facilitate self-liberation, social networking and emotional freedom (Gough and MacNair, 1985). Such organizations thus become important reference groups for many gay men. The expectations of such groups with regard to lifestyle change in the face of AIDS would be expected to have a strong impact on such mens' decision-making (Kotarba and Lang, 1986).

Influence of friends and family: Many gay people may not have open and honest communications with family members due to a fear that they will encounter negative reactions to their sexual orientations. The stigma of HIV disease itself means that gay and straight persons alike may encounter prejudice from family members who may either be frightened of contagion or, having incorporated societal attitudes towards persons with AIDS,

may actually condemn or reject them. Thus the possibility for family intervention in these cases may be limited .

Where families are accepting and loving of their gay members, their support and protection can be invaluable. Such families are often encouraging of safer sex behaviour, allowing the gay members to feel valued and worthy of concern. They can then introject such attitudes towards themselves.

Apart from a gay man's family, his next most important reference group will often be other gay men in his friendship circle. The attitude of his friendship group to the AIDS threat and the relevance of safer sex to them will provide a strong influence on his actions (Kelly and Murphy, 1992; Schurink and Schurink, 1990). After the gay liberation movement took hold in America, many gay men saw this as an opportunity to throw off the shackles of sexual oppression and express their sexuality physically with a sense of celebration rather than shame (Altman, 1986). In gay culture, the reality of AIDS contradicts this spirit of sexual freedom. Some men choose to ignore the threat of AIDS, others may feel that their sexual lives are now over. Those who do not take such extreme positions are often able to combine a risk-free lifestyle which still includes satisfying sexual expression (Hirsch and Enlow, 1984; Watney, 1987). Whichever position a man takes, he will often be highly influenced by the position which is generally held by his friends.

Age: Studies have shown that adolescents and young adults are most at risk generally (Kelly and Murphy, 1992). Gay teenagers face specific problems. Students at South African

government schools are denied access to information about AIDS prevention as well as being denied sex education. AIDS pamphlets are usually addressed to heterosexual adolescents (Schurink and Schurink, 1990).

Dealing with AIDS may cause a conflict with developmental facets such as "coming out" which entails sexual exploration, especially among gay adolescents (Coleman, 1988). It is thus essential that this age group receive education on how to protect themselves from HIV infection. Shurink and Shurink's (1990) study supports this by indicating that the largest single group of gay male respondents had their first sexual experience between the ages of 11 and 16 years. Shurink and Shurink (1990) suggest that such education should already be taking place at primary school level. Younger men have also been shown by numerous studies to be more likely to have both non-regular partners and to have unprotected receptive anal sex with those partners (Fitzpatrick et al., 1990).

Cues to action: Widespread media reports and articles in gay publications, especially "Exit", one of the major newspapers for South African gay men and lesbians, can provide cues for action (Kotarba and Lang, 1986; Schurink and Schurink, 1990).

The illness of a family member or friend appears to be one of the strongest cues. The sight of a person with AIDS in the advanced stages of disease deterioration has also been strongly related to risk reduction (Fitzpatrick et al., 1990).

Symptoms which resemble those of HIV illness, also termed pseudo-symptoms, are another cue to action. A gay man may develop a cough, swollen lymph glands, skin lesions or contract a

sexually transmitted disease. The fear generated in such a person as a result of wondering whether he is HIV-infected and the relief experienced when he discovers he is not (e.g. through HIV-testing) may motivate him to be more aware of risk situations in the future.

A related cue may be hearing that a previous sexual partner has been tested. Whether his result is positive, negative or unknown, it may make the person aware of risks involved.

6. Application of the Health Belief Model to gay behaviour change

Kotarba and Lang (1986) see three main reasons for the relevance of the HBM to gay behaviour change. Firstly, it explains preventive health care, a critical aspect when dealing with the AIDS crisis. Secondly, it incorporates a wide range of social and psychological variables, moving away from the simplistic supposition that a fear of AIDS will lead automatically to behaviour change. Thirdly, it demonstrates how the absence or dysfunction of one factor can preclude preventive action even when other strong motivating factors exist.

The HBM is very useful in predicting both health behaviour before illness and compliance to prescribed health protective behaviours. It thus also provides an excellent framework for intervention. Once a particular dimension has been targeted as the problem area which is impeding compliance, researchers can set about trying to correct false perceptions and to adjust preventive strategies accordingly.

7. Summary

Evidence from a number of studies of people's reactions to various health risks has supported the link between an external locus of control and a failure to engage in health protective behaviour (Strickland, 1978). This study will attempt to examine whether those gay men who fail to respond to AIDS prevention campaigns by not changing their sexual behaviour also tend to have an external locus of control. Furthermore, the HBM provides information on a number of psychosocial factors which could also play a major role in health protection. For this reason the HBM will also be utilized in the present study. The methodology employed by this investigation is described in the following chapter.

CHAPTER 4

AIM, HYPOTHESIS AND METHODOLOGY

The aim and hypothesis of the research report, as well as the methodology entailed in executing the study, are presented in this chapter.

1. Aim of the study

The focus of the study was to examine whether gay men who continued to participate in high-risk sexual practices were more likely to have an external locus of control. An overview of the literature has shown that persons with an external locus of control are less likely to participate in health-enhancing behaviours and are less responsive to prevention programmes than persons with an internal locus of control (Strickland, 1978). It was therefore postulated that gay men who have not changed their behaviour in response to AIDS and continue to participate in high risk sexual activities are more likely to have an external locus of control than are gay men who have changed to safer sex.

Men who have high risk sex may also differ on many of the variables identified by the Health Belief Model and the study examined several of these variables as well. The Health Belief Model was also included as it identified numerous factors within the dimensions of perceived susceptibility, perceived severity, cost-benefit ratios and modifying factors (Becker, 1979; Kirscht and Joseph, 1989) which related to health-protective behaviour.

2. Research design

The research design is a two independent group design which compares two groups of gay men. The groups were divided according to the level of risk to which their sexual behaviour exposed them.

3. Hypothesis

The study examined whether there was a significant difference between two groups of gay men, those who practise safer sex and those who do not, with regard to locus of control. The construct of locus of control is measured by the I-E (Internal-External) Scale which is a forced choice self-report inventory. High scores on the I-E Scale indicate a tendency towards externality and low scores indicate a tendency towards internality. Taking Group A to represent those men whose sexual behaviour places them at high risk for HIV infection, and Group B to represent those men who participate in sexual behaviours which place them at minimal or no risk for HIV infection, the primary hypothesis of the study can be stated as follows:

Null hypothesis: there is no significant difference between Group A and Group B on the measure of locus of control.

Alternative hypothesis: there is a significant difference between Group A and Group B, with Group A tending towards the external end of the I-E scale and Group B tending towards the internal end of the I-E scale.

4. Further investigations

Group A and Group B are also compared and expected to differ

with regard to the following psychosocial variables: openness of gay identity; importance of the gay community as a reference group; relationship status; subjective assessments of level of risk; type of precautions taken; influences of AIDS on behaviour; sources of information. These factors were all discussed in Chapter 3 within the framework of the HBM. An attitude survey was also included to see whether attitudes to AIDS-related issues differed between the two groups.

5. Subjects

The subjects in this study consisted of 47 gay, white, South African males. For the purposes of this study "gay" was taken to refer specifically to gay sexual behaviour rather than to a description of gay sexual orientation. As Coleman (1988) emphasizes, some men have gay sex but define their orientation as predominantly heterosexual. This is obviously problematic if one is researching actual sexual behaviour. To identify appropriate subjects therefore, candidates for the study were asked to describe their sexual behaviour on a Kinsey rating scale (Q.6). This scale, or a variation of it, is widely used in research on gay men (e.g. Coleman, 1988; Isaacs, 1979; Isaacs and McKendrick, 1992). The Kinsey scale is a 6 point scale where 0 denotes exclusive heterosexual sex and 6 denotes exclusive gay sex. A rating of 3 indicates equal amounts of heterosexual and gay sex (Kinsey, Pomeroy and Martin, 1948). Only those subjects who rated themselves as 5 or 6 on the Kinsey scale were included in the subject group. The scale emphasized actual physical sexual behaviour only. In this way, only those men who indicated that

they have had sex predominantly or exclusively with other men over the previous 12 months were included in the subject groups. As the study examined influences on sexual behaviour, only sexually active men were required for the research. Thus men who choose celibacy as a means to protect themselves from HIV infection were not included.

Only white men were included in the study for reasons discussed in Chapter 1. In addition, subjects needed to score at least 80% on a Knowledge of AIDS sub-test (Q.16,17). This was to ensure that actual ignorance of the disease or its transmission was not a confounding factor.

The mean age of the subject group was 34 years with a range from 21 to 55 years. The sample was well educated. A matriculation had been obtained by 21% of the sample while 79% had achieved post-matriculation qualifications.

On the basis of subjects' acknowledged sexual behaviour during the previous 12 months (Q.10), the sample was divided into two groups, Group A and Group B, according to the estimated level of risk to HIV infection to which they were exposing themselves.

Group A consists of those men whose sexual behaviour places them at high risk for HIV exposure. Operationally, this includes those subjects (n = 19) who have engaged in high-risk sexual behaviours as the study defined this in Chapter 3. Accordingly, this group will be referred to as the High Risk Group.

Group B consists of those gay men who participate in sexual behaviours which place them at no or only minimal risk of HIV exposure. Operationally, this group, the Low Risk Group, includes all those subjects (n = 28) whose responses indicate that they

only have safer sex or participate in sexual practices which place them at moderate risk for exposure to HIV (as defined in Chapter 3). It would also include those men who claim to have had sex only with partners whom they know to be HIV negative and those who have been in a one-partner, exclusive relationship for the past twelve years, before the HIV virus began to impact on South Africans.

Several researchers have classified sexual practices according to the level of risk they present, ranging from minimal to high risk. However, many of them differ in their evaluation of "degree of risk". This study will follow the categories described by Kelly and St. Lawrence (1988) which are as follows:

Probable degree of transmission risk associated with sexual activities among gay or bisexual males (Kelly and St. Lawrence, 1988, pg. 24)	
High Risk	- Anal intercourse without condom - Oral-anal activity - Digital-anal activity ("fisting") - Other practices that could entail bloodstream exposure to partner's excretions or semen
Probable Moderate Risk	- Anal intercourse with condom (risk due to breakage potential) - Oral-genital activity

Probable Low Risk	- Mutual masturbation - Massage - Rubbing or friction activities (frottage) without insertion
No Risk	- Celibacy - Maintenance of sexually exclusive relationship when neither partner is HIV-positive

6. Procedure

The study employed a pencil and paper questionnaire (Appendix B) which was distributed amongst the gay community in the Johannesburg and Durban areas. A random probability sample of gay men in these areas was not possible to obtain since all members of the population cannot be enumerated and, therefore, a complete sampling frame cannot be constructed (Bauman and Siegel, 1990). Subjects were selected using the "snowballing" technique (Schurink and Schurink, 1990). This is a well accepted procedure for research in the gay community. Several key people were given a number of questionnaires to hand out to gay men in their social network. This provides access to a broader range of people within the gay community than do many similar approaches that focus on more specific subject groups. It is particularly useful as it includes those gay men who do not frequent popular gay meeting places or who are "in the closet" (not openly gay).

Two hundred questionnaires were distributed in the Johannesburg and Durban regions. Approximately a quarter of them (62) were returned. This is an above average rate of return

(Kerlinger, 1973). Of the 52 questionnaires returned, 47 were finally found to be usable. The reasons the other questionnaires were rejected was due to their being filled in incompletely or incorrectly. Two of the questionnaires were rejected as the respondents had failed to score more than 80% on the general knowledge of HIV/AIDS sub-test.

Subjects were then rated on the sexual behaviour survey section of the questionnaire (Q.10) and on the basis of this and/or their relationship status (Q.8), were assigned to one or other of the two groups. The rest of the items were then scored in order to test the hypotheses.

7. Measuring Instruments

The instruments employed by this study consisted of the above mentioned questionnaire and Rotter's Internal-External locus of control scale (the I-E scale). These were combined into a battery in which the I-E scale was incorporated as Q.22, and was termed the AIDS Impact Questionnaire for the purposes of this study. The AIDS Impact Questionnaire may be found in Appendix B.

The front page (See Appendix B) of the AIDS Impact Questionnaire explained that the purpose of the study was for research which would be useful when designing interventions for protecting gay men from infection. This explanation was especially important as the gay community tends to be suspicious of research questionnaires (as discussed in Chapter 1).

The front page instructions also delineated who should fill in the questionnaire - primarily gay men. Confidentiality was assured and envelopes were provided so that respondents could

seal their responses as well as post them anonymously to the researcher if so desired.

7.1. The Questionnaire

The researcher, in an attempt to address some of the psychosocial factors which were of interest to the study, developed his own questionnaire, borrowing heavily from the work of Schurink and Schurink (1990), because no questionnaires exist which elicit all the data required. Schurink and Schurink (1990) together with ISODEM, the Gay Alliance and the editor of EXIT, had developed a survey as part of their research among gay men and women in South Africa in order to obtain "scientific information on gay lifestyles" (Schurink and Schurink, 1989, p. 4). They focused on such topics as the development of gay identity, sexual behaviour, gay institutions, health, and attitudes towards acts of Parliament on homosexuality. The survey also included questions on the threat of AIDS. The latter was supplemented with interviews and participant observations of the social dimensions of the AIDS problem among gay men in Cape Town. The questionnaire consisted largely of structured questions, a few open ended questions and an invitation to forward essays should subjects so wish (Shurink and Schurink, 1990).

As this questionnaire was far too broad for the current needs of the present research, only those questions which were relevant to the concerns of this study were selected. The researcher also developed his own questions to obtain further relevant information. These include the aspects of sexual behaviour, subjective assessment of level of risk, reasons for

not taking precautions survey, Knowledge of AIDS sub-test and Attitude survey.

The questionnaire was set out as follows:

Question 1: Sociodemographic data

The age of the respondent was requested. This was to obtain two sample groups which were relatively age homogenous. This controls for t e fact that younger people tend to be more sexually active.

Question 2: Sociodemographic data

The subject was asked to specify his population group. It was decided to only include white men in the sample groups for reasons already stated in Chapter 1.

Questions 3,4 and 5: Sociodemographic data

These questions requested the respondent's highest educational qualifications and occupation for the purpose of gaining sociodemographic information.

Question 6: The Kinsey Scale

The respondent was asked to describe his sexual behaviour on the Kinsey rating scale which was described earlier in section 5 (Subjects).

Question 7i: Openness of gay identity

The respondent was asked how open he was about his gay sexual orientation. Gay men who do not reveal their sexuality to others may be at higher risk as they lack a support system and reference group which might influence them. Respondents are asked to rate the extent to which they are "out of the closet" on a 5 point scale.

Question 7ii: Importance of the gay community

The subject was asked about the importance he attached to the gay community as a reference group.

Question 8: Relationship status

The respondent was asked to describe his relationship status. Gay men may take fewer or more risks according to the nature of their relationship/s (as discussed in the previous Chapters). Clearly, those men who have multiple sexual partners are at more risk.

Question 9: Length of present relationship

People who have been in a relationship for less than 12 years may be at risk (people in South Africa began getting infected with HIV from approximately 1980 onwards).

Question 10: Sexual behaviour survey

The respondent is asked to tick off the sexual behaviours he has engaged in during the past 12 months to ascertain the level of risk to which he is exposing himself. The responses were then assessed and the subject was placed into one of the two subject groups (See section 5: Subjects).

Question 11: Subjective assessments of level of risk

The respondent was asked to give a subjective assessment of the level of risk associated with his sexual behaviour.

Question 12: Precautions taken over the last 12 months

This question asked how many times the respondent had taken precautions while having sex. This can be compared with subjective assessments of level of risk (Q.11) and objective measures of sexual activity (Q.10).

Question 13: Type of precautions taken

This question explored the number and type of precautions taken, if any.

Question 14: Reasons for not taking precautions

A list of possible reasons for not taking precautions during unsafe sex were listed here and respondents were asked to tick off those which applied.

Question 15: The influence of AIDS on behaviour

This question asked in what ways the AIDS disease had particularly influenced the respondent to increase his health protective behaviour.

(The above 3 questions could provide useful information when considering educational and intervention campaigns.)

Question 16 and 17: Knowledge of AIDS sub-test

These two questions assessed the respondent's knowledge of AIDS. For the purposes of this study those respondents who obtained a mark of less than 80% on the True/False/Don't know quiz (Q.17) were not included in the sample group.

Question 18: Subjective assessment of AIDS knowledge

The respondent was asked whether he considered himself wel. informed about AIDS. This could then be compared to his quiz score to see if his assessment is accurate.

Question 19: Further AIDS-related influences

This question explored whether the respondent knew someone affected by HIV disease. This is known to strongly influence the increase of health protective behaviour.

Question 20: Factors influencing behaviour

This question explores which factors may have influenced the respondent to change his sexual behaviour.

Question 21: Attitude survey

The attitude survey was constructed to identify certain beliefs regarding perceived susceptibility to AIDS, the incorporation of self-oppressive beliefs, the perception of oppression and attitudes to monogamy. The subjects are presented with a statement and are asked to agree or disagree with it. The survey aims to provide additional descriptive information.

Question 22: The I-E Scale

This is the measure of locus of control and is discussed below.

7.2. The I-E Scale

The I-E (Internal-External) scale which was developed by Rotter (Rotter, 1966) is used to measure locus of control. The instrument is used to assess generalized expectancies for internal versus external control of reinforcement. It consists of a self-report Lickert scale which is constructed of 29 pairs of forced-questions, 4 of which are fillers and therefore disregarded. The final score comprises the total of the responses relating to the external locus of control (Rotter, 1966).

The locus of control has been widely used in research. Split-half and Kuder-Richardson reliabilities of total scores cluster around .70. Retest reliabilities after one to two month intervals are at the same level but tend to vary somewhat with the length of the interval, conditions of administration, and the

nature of the group being studied. Correlations with social desirability scores and with interest tests are low. There is considerable data on the construct validity of the I-E scale. Factor analyses indicate that a single general factor can account for most of the response variance (Anastasi, 1988).

8. Statistical Analysis

The following statistical measures were used in this study; t-test, frequency counts and rating scales. Each will now be described briefly and the questions to which they correspond will be indicated.

t-test: (Question 22) For the locus-of-control results the t-test for independent samples was used to compare means. This is a parametric technique and is used when the level of measurement is at least an interval scale. Data is thus assumed to be normally distributed and there is a homogeneity of variance for both groups (Minium, 1978). The SAS PROC TTEST was the procedure used.

Frequency counts: (Questions 8, 13, 14, 15, 19, 20) Here a percentage frequency breakdown was given of the results (Minium, 1978). The procedure used was SAS PROC FREQ (Cody and Smith, 1987).

Rating scales: (Questions 7i, 7ii, 11, 12) The rating scale is used as a non-parametric technique, where the level of measurement is an ordinal scale. SAS uses the Wilcoxen test for two independent groups. The test is usually called the Mann-Whitney test (Minium, 1978). The procedure used was SAS PROC NPAR1WAY (Cody and Smith, 1987).

Chi-squares: (Questions 4, 19) The chi-squared statistic is used to test hypotheses about entire frequency distributions. The sample frequencies characterising the categories of the distribution are compared with those frequencies expected according to the researcher's hypothesis. The approach was developed for nominal or categorical data and can be used with single or multiple classifications (Minium, 1978).

CHAPTER 5

RESULTS

It is important to note that the following results are representative only of the sample and cannot be generalised to the entire South African gay community. Any statistical results must be viewed as tendencies which require further confirmation.

The statistical results which comprise t-test scores, percentage frequencies, median scores or chi-squares are shown in tables and graphs. As the locus of control scores are a primary focus of the study they will be presented first.

1. Locus of Control

Table 1: Mean external locus-of-control scores for each group.

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
EXTERNAL LOCUS-OF-CONTROL	9,74	6,79

The I-E scale measures the external locus of control score only. If a score tends towards 1, it is defined as tending towards internal locus of control. Using a t-test for two independent groups the results indicated a significant difference between the two groups [$t(45) = 2,1447$; $p < 0,0374$], which confirmed the alternative hypothesis. In other words, the results support the hypothesis that gay men who participate in sexual behaviour which puts them at high risk for infection of the HIV

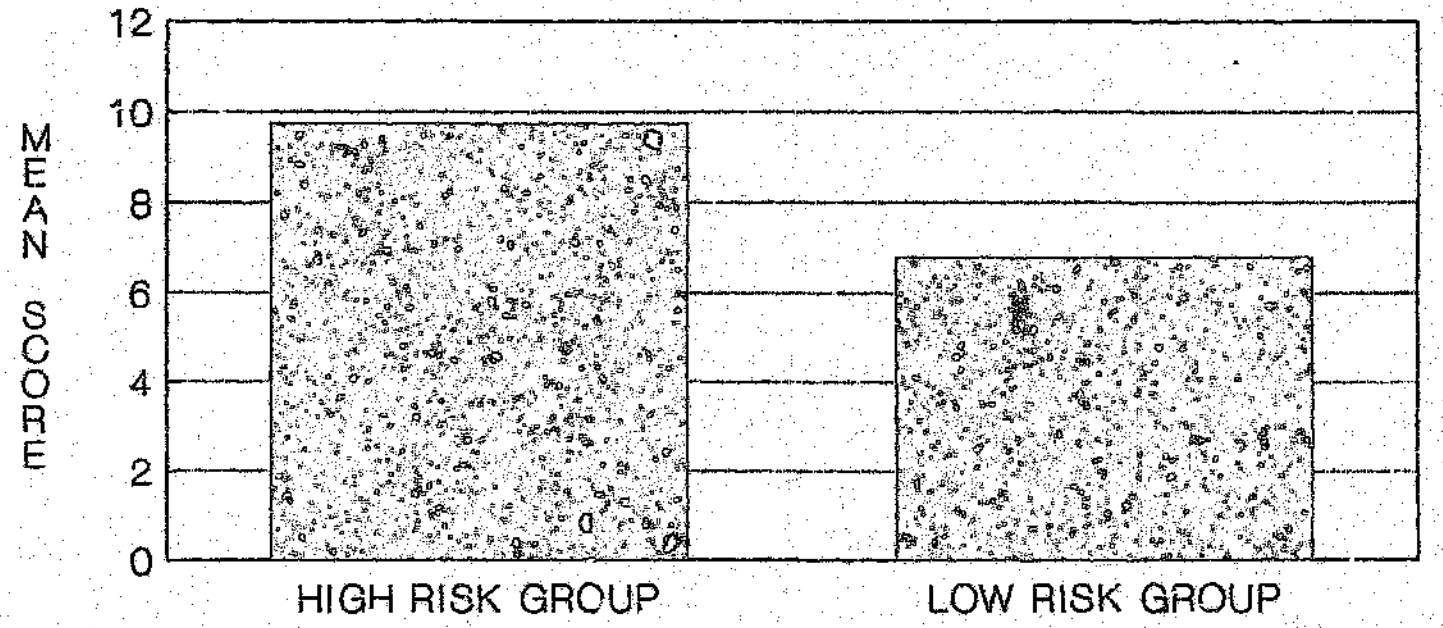


FIGURE 1
Bar chart showing mean locus of control scores for each group.

virus tend to have significantly higher scores with respect to external locus of control. The means for each group are presented in Table 1 and represented graphically in Figure 1.

The other areas of interest covered by the questionnaire (See Appendix B) will now be presented in the same order in which they were presented in the questionnaire.

2. Openness of gay identity (Question 7i)

Table 2: Median ratings and Frequencies for openness of gay identity scale (percentages in brackets)

	HIGH RISK GROUP (n = 19) Median: 3	LOW RISK GROUP (n = 28) Median: 4
1.*	0 (0)	0 (0)
2.	4 (21)	1 (4)
3.	6 (32)	4 (14)
4.	5 (26)	16 (57)
5.	4 (21)	7 (25)

*(The scale ranges from 1 to 5 where 1 = not at all open and 5 = open to a great extent)

The median ratings for each group on the openness of gay identity scale are represented in Table 2 and graphically represented in Figure 2. Each subject's rating in each group was submitted to the Wilcoxon test using the SAS PROC NPAR1WAY

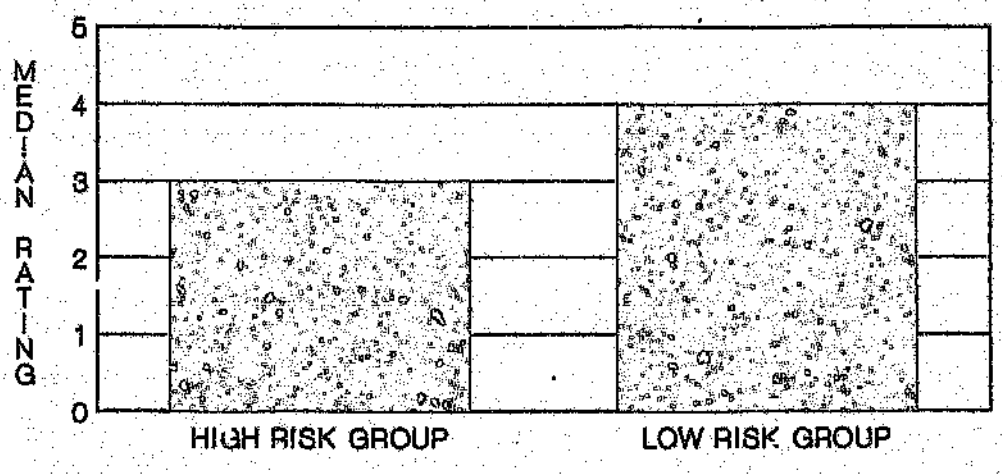


FIGURE 2
Bar chart showing median ratings for openness of gay identity scale.

procedure. The group differences approached significance (s = 373; z = 1,89833; p = 0,0577). The results suggest that the low risk group tends to be more open to friends, family and/or employers about their gay identity than the high risk group.

3. Importance of gay community (Question 7ii)

Table 3: Median ratings and Frequencies for the importance of the gay community as a reference group (percentages in brackets)

	HIGH RISK GROUP (n = 19) Median: 3	LOW RISK GROUP (n = 28) Median: 4
1.*	1 (5)	1 (4)
2.	3 (16)	4 (14)
3.	8 (42)	8 (29)
4.	6 (32)	12 (43)
5.	1 (5)	3 (10)

*(Scale of 1 to 5 where 1 = very unimportant and 5 = very important)

The median ratings for each group on the importance of the gay community to the subjects are represented in Table 3 and graphically represented in Figure 3. Each subject's rating in each group was submitted to the Wilcoxon test using the SAS PROC NPAR1WAY procedure. The group differences were not significant (p > 0,3), suggesting that the gay community is of equal importance to both groups.

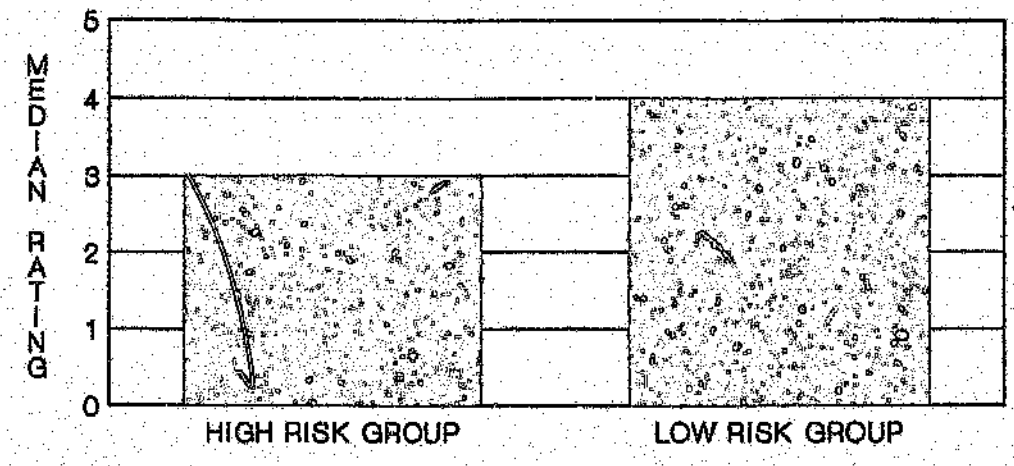


FIGURE 3
Bar chart showing median ratings for importance of gay community.

4. Relationship status (Question 8)

Table 4.1: Breakdown of relationship status for each group (percentages in brackets).

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
A: Single, no sexual partners	2 (11)	7 (25)
B: Single, one regular sexual partner	3 (16)	6 (21)
C: Single, multiple sexual partners	8 (42)	3 (11)
D: Coupled, exclusive sexual relationship	5 (26)	9 (32)
E: Coupled, relationship permits other sexual partners	0 (0)	2 (7)
F: Coupled, other sexual partners without partner's knowledge	1 (5)	1 (4)
	100%	100%

The percentage breakdown of the relationship status for each group is represented in Table 4.1. The results are set out graphically in Figure 4 in which the categories are represented by letters A to F as delineated in Table 4.1.

The high risk group tends mostly to have single, multiple sexual partners while the low risk group tends mostly to have coupled, exclusive sexual relationships. This was confirmed by

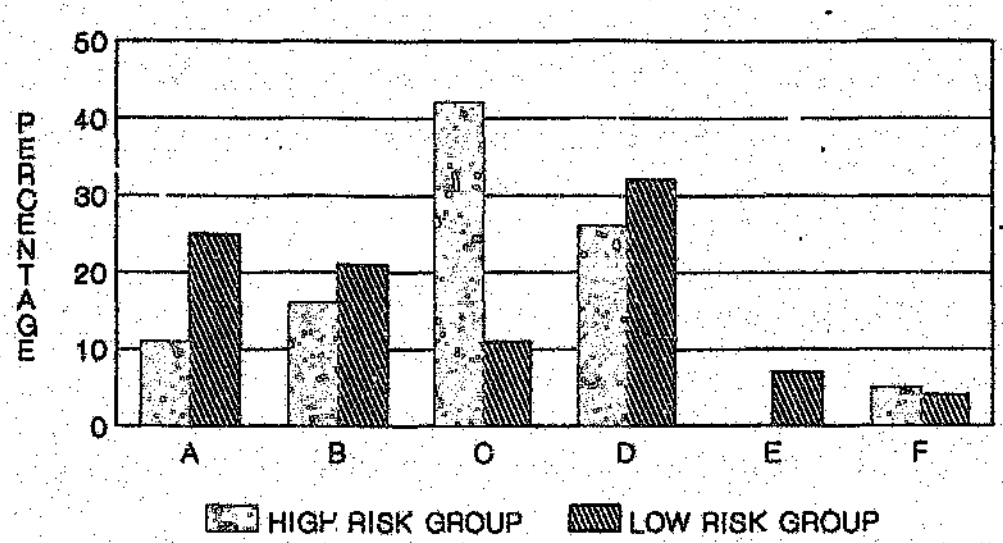


FIGURE 4
Bar chart showing percentage breakdown of relationship status for each group.

Key:

A = Single, no sexual partners

B = Single, one regular sexual partner

C = Single, multiple sexual partners

D = Coupled, exclusive sexual relationship

E = Coupled, relationship permits other sexual partners

F = Coupled, other sexual partners without partner's knowledge

a chi-square analysis of the combined data (comparing data grouped according to whether the subjects had one/no sexual partners or multiple sexual partners) where significance was reached (x^2 (df) = 1; $p < 0,001$) and can be seen below in Table 4.2.

Table 4.2: Chi-square analysis of relationship status

	Multiple Sexual Partners	One/No Sexual Partners
HIGH RISK GROUP	47	53
LOW RISK GROUP	22	78

5. Mean Length of present relationship in months (Question 9)

Table 5: Mean length of present relationship in months.

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
MEAN NO. OF MONTHS IN RELATIONSHIP	2,2	26,6

The mean length of the present relationships (measured in months) for those subjects currently in a coupled relationship are represented in Table 5 and graphically represented in Figure 5. Those in the low risk group tend to have relationships which last much longer than those of the high risk group.

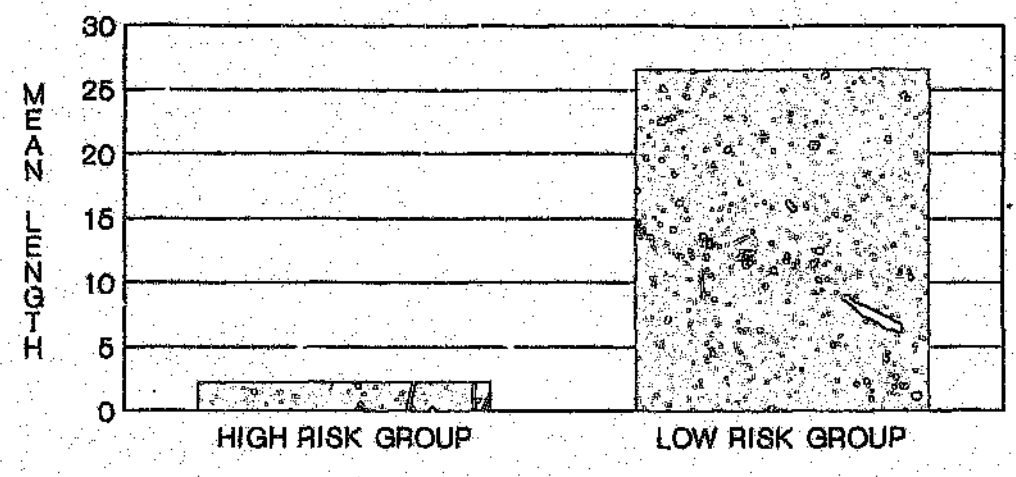


FIGURE 5
Bar chart showing mean length of present relationship in months.

6. Subjective assessments of level of risk (Question 11)

Table 6: Median ratings and Frequencies of subjective assessments of level of risk (percentages in brackets)

	HIGH RISK GROUP (n = 19) Median: 1	LOW RISK GROUP (n = 28) Median: 0
0.*	0 (0)	15 (54)
1.	12 (63)	12 (43)
2.	5 (26)	1 (3)
3.	2 (11)	0 (0)
4.	0 (0)	0 (0)

*Scale: 0 = not at all risky
1 = not very risky
2 = risky
3 = very risky
4 = highly risky

The median ratings for each group on subjective assessments by the respondents on the level of risk of their behaviour with regard to exposing themselves to the HIV virus are represented in Table 6 and graphically represented in Figure 6. Each subject's rating in each group was submitted to the Wilcoxon test using the SAS PROC NPAR1WAY procedure. The group differences were significant (s = 635,5; z = 4,25264; p < 0,0001). The high risk group members tended to underestimate the level of risk of their

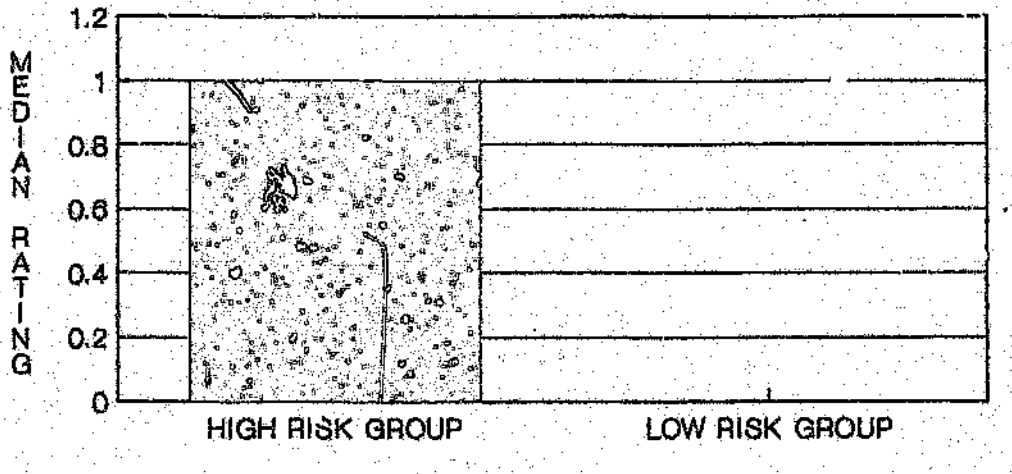


FIGURE 6
Bar chart showing median subjective assessments of riskiness.

behaviour while the low risk group members tended to accurately rate their level of risk.

7. Precautions taken over last 12 months (Question 12)

Table 7: Median ratings and Frequencies of precautions taken over the last 12 months (percentages in brackets)

	HIGH RISK GROUP (n = 19) Median: 3	LOW RISK GROUP (n = 28) Median: 4
*0.	1 (4)	5 (18)
1.	2 (11)	1 (3)
2.	2 (11)	0 (0)
3.	12 (63)	7 (25)
4.	2 (11)	15 (54)

*Scale: 0 = 0% of the time
1 = 20% of the time
2 = 50% of the time
3 = 80% of the time
4 = 100% of the time

The median ratings for each group for the perceived amount of precautions taken over the last 12 months to avoid HIV infection are represented in Table 7 and graphically represented in Figure 7. Each subject's rating in each group was submitted to the Wilcoxon test using the SAS PROC NPAR1WAY procedure. The

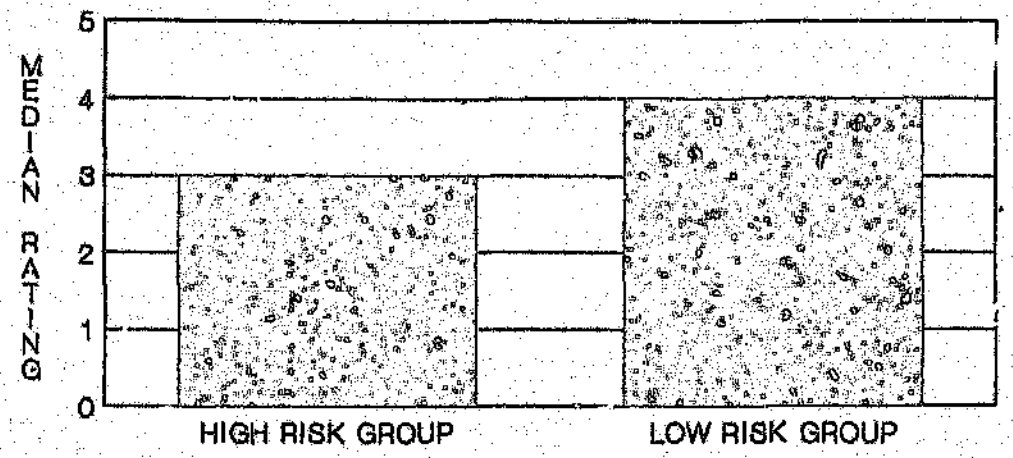


FIGURE 7
Bar chart showing median ratings of precautions taken over last 12 months.

group differences just reached statistical significance (s = 370,5; z = 1,95912; p < 0,0501). The low risk members tended to take precautions every time while high risk members tended to take precautions only 30% of the time.

8. Type of precautions taken (Question 13)

Table 8: Breakdown of the type of precautions taken by both groups (percentages in brackets).

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
Exclusive sexual partner whom you know to be HIV-negative	0 (0)	15 (54)
Made use of condoms	11 (58)	14 (50)
Fewer sexual partners	9 (47)	11 (39)
Safer sex practices	15 (79)	19 (68)
Avoided casual sexual partners	7 (37)	12 (43)

The percentage breakdown of the type of precautions taken by each group is represented in Table 8 and graphically represented in Figure 8. (It must be noted that results were not exclusive to one category and hence statistical comparisons can not be made). Various subjects in both groups indicated that they had taken the precautions presented in question 11. (Note: By definition all subjects who indicated that they had an exclusive

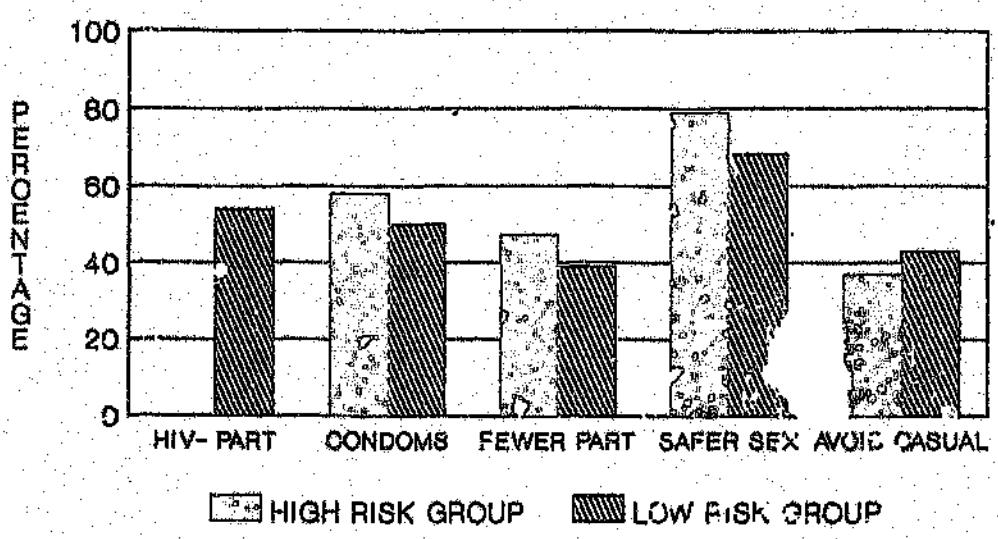


FIGURE 8
Bar chart showing percentage breakdown of types of precautions taken.

sexual partner who was HIV-negative were placed in the low risk group.)

9. Reasons for not taking precautions (Question 14)

This question presented a list of possible reasons for the subjects not taking precautions against HIV infection. Only the high risk group was considered as, by definition, they were the specific group which did not take adequate precautions. Of the high risk group of 19 it was found that 8 respondents did not identify any of the given suggestions in Question 14 for not taking precautions. The responses of the remaining 11 members of the high risk group are represented in Table 8.

Table 8: Breakdown of reasons for not taking precautions (percentages in brackets)

	NO. OF RESPONDENTS (n = 11)*
In the excitement of the moment precautions were forgotten	7 (64)
I was drunk or stoned and thus not as cautious as when sober	5 (46)
My partner might have been put off having sex if I had started talking about the dangers of AIDS	4 (36)

I was too embarrassed to bring the subject of precautions up	3 (27)
I was reluctant to offend my partner who might think he was being accused of being untrustworthy/promiscuous	3 (27)
It won't happen to me	3 (27)
I was very careful when I first heard about AIDS but lately I've become careless	3 (27)
I was pressured into having sex	2 (18)
If my sexual partner looked healthy then I didn't worry	2 (18)
I am not scared	2 (18)
My partner disliked using condoms	2 (18)
My sexual behaviour is too ingrained at this stage	2 (18)
I didn't have a supply of condoms	1 (9)
I know my sexual partner/s has/have tested negative for the HIV virus	1 (9)
Condoms interfere with my enjoyment of sex	1(9)
I always leave it up to my partner to decide	1 (9)

The list is set out in descending order of the frequency with which the reasons were chosen. (As the results were not

exclusive to one category no statistical comparison was possible).

The most frequently indicated reason for precautions not been taken is that in the excitement of the moment precautions were forgotten (64%). This was followed by 46% of the respondents stating that due to intoxication they were not as cautious as when sober.

10. Influence of AIDS on behaviour (Question 15)

Table 9: Influenced by AIDS to:

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
To practise sex with one sexual partner whom you know to be HIV-negative	4 (21)	14 (50)
To stop visiting certain places for sexual purposes	6 (32)	11 (39)
To practise only safer sex	15 (79)	19 (68)
To take better care of your health	8 (42)	14 (50)
To cut down on the usage of alcohol and/or drugs	5 (26)	8 (28)

The percentage breakdown of the behaviours which the respondents were influenced by AIDS to adopt are represented in Table 9 and graphically represented in Figure 9. The majority of

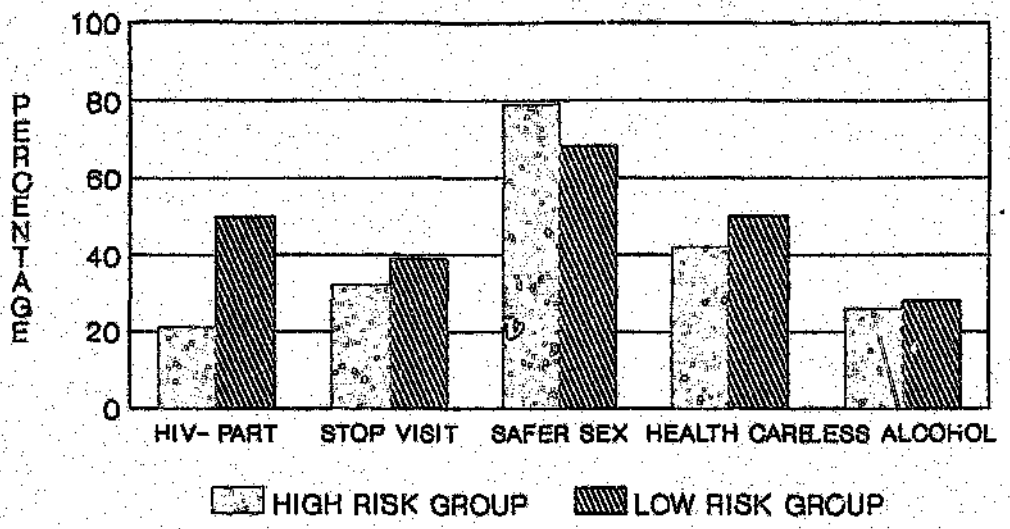


FIGURE 9
Bar chart showing AIDS influence on behaviour.

respondents in both groups indicated that they had been influenced to adopt safer sex practices.

11. Further AIDS influences (Question 19)

Table 10: Breakdown of further AIDS influences for both groups (percentage in brackets).

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
Someone who is HIV-positive	14 (74)	24 (86)
Someone who is presently suffering from one of the AIDS-related diseases	9 (47)	14 (50)
Someone who has died of AIDS	10 (53)	21 (75)

The percentage breakdown for both groups of those respondents who know people who are HIV positive, sick with an AIDS-related illness or have died from AIDS is represented in Table 10 and graphically represented in Figure 10. The results indicate that members of both the low and high risk groups have had more exposure to persons who are HIV positive, suffering with an AIDS-related illness and/or have died from AIDS. A chi-square analysis observed a tendency for subjects in the low risk group to have had more exposure, especially to persons who had died of AIDS, but this was not significant ($p > 0,1$).

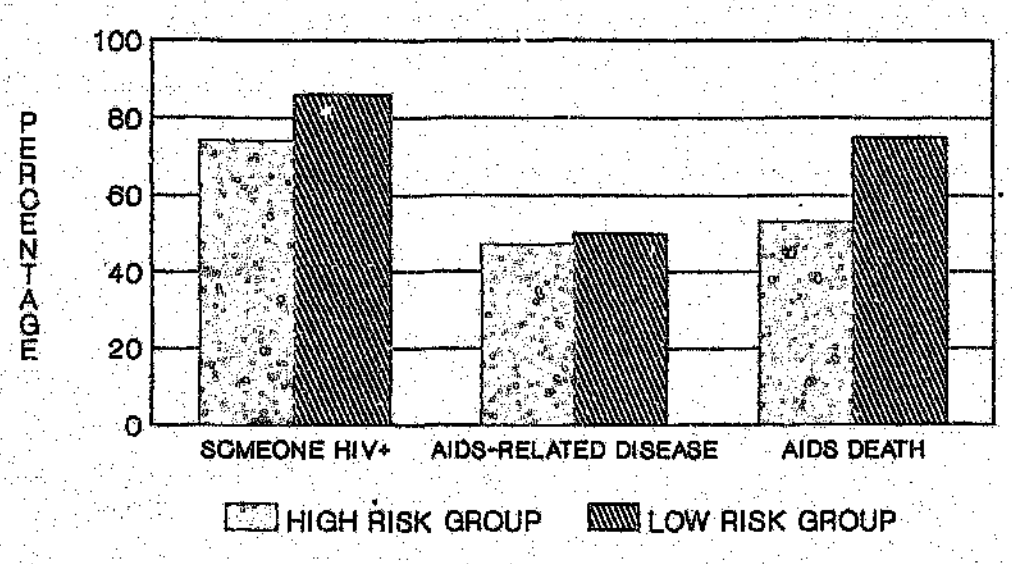


FIGURE 10
Bar chart showing percentage breakdown of further AIDS influences.

12. Sources of information (Question 20)

Table 11: Breakdown of sources of information (percentages in brackets)

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
Learning that someone you know has AIDS	10 (53)	19 (68)
Newspaper reports on AIDS	14 (74)	25 (89)
Articles in Exit on AIDS	7 (37)	16 (57)
Articles in magazines on AIDS	10 (53)	25 (89)
Lecture/s on AIDS	8 (42)	17 (60)
Pamphlets on AIDS	13 (68)	19 (68)
Television programme/s on AIDS	15 (79)	18 (64)
Own family doctor	1 (5)	4 (14)
A radio programme about AIDS	3 (16)	1 (39)
Gay counsellor/s	4 (21)	6 (21)
Seeing photographs of persons with AIDS	9 (47)	11 (39)
Videos/film about persons with AIDS	13 (68)	11 (39)

The percentage breakdown of the sources of information which may have been modifying factors in influencing the respondents

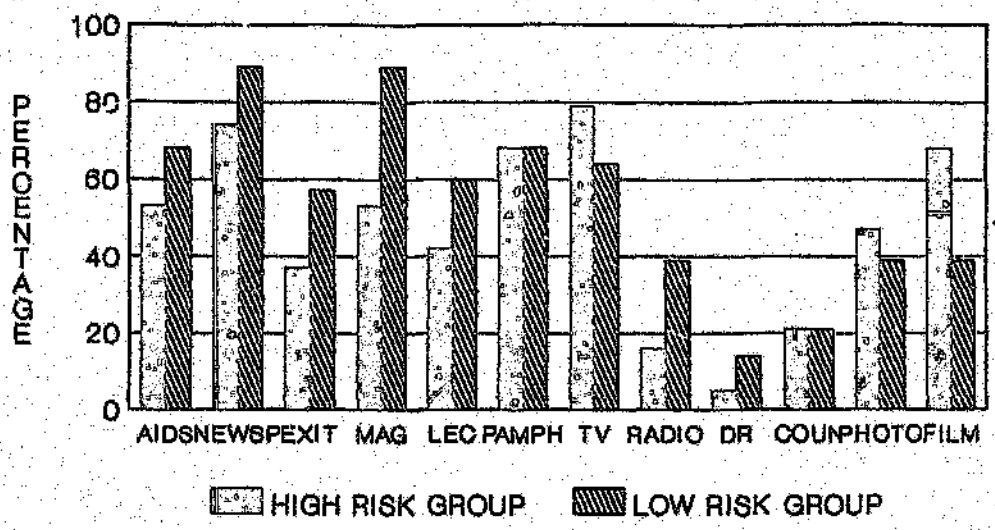


FIGURE 11
Bar chart showing percentage breakdown of sources of information.

to adopt health protective behaviours is represented in Table 11 and graphically in Figure 11. Public media such as magazines, newspapers and television appeared to have the most influence over both groups. It is also notable that the family doctor was seen as having the least influence over both groups. (As responses overlap between categories no statistical comparison was possible).

13. Attitude survey (Question 21)

The percentage breakdown for the two groups of those who agree with the statements are represented in Table 12. A discussion of these findings will be included in Chapter 6. It is only possible to present these results descriptively because the questions in this survey concern values, beliefs and facts which are not directly comparable.

Table 12: Breakdown of "AGREE" responses for both groups (percentages in brackets)

	HIGH RISK GROUP (n = 19)	LOW RISK GROUP (n = 28)
Gay men in South Africa should be as concerned about contracting the AIDS virus as gay men in North America	19 (100)	27 (96)
Gay men who have unsafe sex with multiple partners are to blame for the AIDS crisis	6 (32)	10 (36)

Haemophiliacs and children are the innocent victims of the AIDS epidemic	12 (63)	23 (82)
I can't help thinking sometimes that AIDS does appear to be some form of punishment for loose sexual morals	3 (16)	4 (14)
It is not possible for all gay men to accept one partner relationships as a realistic choice	12 (63)	13 (46)
AIDS has a positive side as it will lead to more intimate, committed long-term relationships	5 (26)	19 (68)
Men who still have unsafe sex are compulsive sex addicts	2 (11)	6 (21)
I am aware of and/or have experienced more anti-gay prejudice since the advent of AIDS	11 (58)	14 (50)
The dangers of AIDS infection have been highly exaggerated	2 (11)	3 (11)

14. Summary

The most notable trends evidenced by the above results suggest that the high risk group tends to contain members who have an external locus of control and who also tend to consistently underestimate their level of risk of exposure to HIV infection. The above results will now be discussed in the following chapter.

CHAPTER 6

DISCUSSION

A discussion of the results of the research will now be undertaken. As stated in the aim of the study, the goal of the research was to produce data which highlighted those factors, in particular locus of control, which might play a role in influencing gay men to either adopt or neglect health protective behaviour. The ultimate hope is that this information will be of use in guiding mental health workers in primary health care to institute appropriate educational and risk reduction interventions.

In keeping with the findings of Schurink and Schurink (1990), this study also identified a group of gay men who have a good knowledge of the risk and means of HIV transmission and yet continue to practise unsafe sex. These men comprised the high risk group.

It is clear that AIDS has influenced many gay men to change their sexual behaviour, as reflected in numerous studies (Kelly and Murphy, 1992; Schurink and Schurink, 1990). Men in both of the subject groups in this study indicated such changes. All the men in the low risk group, by definition, have adopted health protective measures or ascertained that they are not at risk. Furthermore, while 21% of the high risk group do not report any behaviour change (Table 7), 79% of them do claim to have put safer sex into practice at some time (58% report having used condoms) (Table 8). These findings are in keeping with studies which reveal that gay men on the whole are tending to adopt safer

sexual practices (Kirscht and Joseph, 1989). However, an essential observation of this study is that while those men who report that they are practising safer sex are in fact doing so, they may not be practising it consistently. Thus they continue to place themselves at risk for HIV infection. Some studies have noted "relapse" to unsafe sex or inconsistent change maintenance to occur in 20-45% of gay men (Kelly and Murphy, 1992).

It is clear that a fear of AIDS does motivate behaviour change to some extent but, as has also been discussed, there exist a number of other psychosocial factors which may influence the decision to have or fail to have safer sex. It must be noted that for many men the decision-making process begins anew each time they are confronted with a sexual opportunity. Such decisions will be under the influence of a different set of psychosocial factors each time, so that the behavioural outcome may vary. It is thus impossible to make the generalization that persons either do take risks or do not. Rather it would be more accurate to state that gay men either do or do not take health risks at varying times under the influence of varying combinations of psychosocial factors.

With regard to influential factors, this study has focused on locus of control as being a central mediating factor. The perception of personal control can influence all decision-making processes with regard to health behaviour (Rosolack and Hampson, 1991). The results of this study confirmed the hypothesis that men who engage in unsafe sexual behaviour (the high risk group) tend to have an external locus of control. The study has argued that men with an external locus of control will be unlikely to

practise safer sex because they see little relation between their behaviour and its outcome.

This has been supported by other findings. Kotarba and Lang (1986) identified a group of American gay men who, although aware of the danger of HIV infection, continued to engage in risky sexual behaviour and displayed external beliefs on the I-E scale. Those subjects who were externals were, as expected, fatalistic about AIDS. They felt that preventing AIDS was beyond their control for numerous reasons. These included the false beliefs that certain people had genetic predispositions to the illness or that the risk of contracting diseases like AIDS was endemic to the gay lifestyle. Schurink and Schurink (1990), in their qualitative survey, also state that many of their respondents believed that preventing AIDS was "beyond their control since its origin lay in external forces" and quoted the following responses: "Everybody will get AIDS so what?"; "Getting AIDS is just part of the risks of being gay" (1990, p. 56).

A closer examination of the sexual behaviour reported by the high risk group in this study revealed that 21% never had safer sex and thus were constantly at risk to HIV exposure (Table 7). As previously mentioned, the remainder of the high risk group (79%), did report practising safer sex at various times (Table 8). This may seem incongruous with the previous assertion that high risk group members, by virtue of their tendency towards externality, will be unlikely to have safer sex. However, it must first be noted that the 79% only took precautions for approximately 80% of the time (Table 7) and are thus still exposing themselves to a high risk of HIV infection for

approximately 20% of the time. As previously mentioned, only one unsafe sexual encounter can be lethal (Crewe, 1992). Secondly, while the high risk group members tend towards externality on the whole, some individuals in this group also approached or indeed scored as having an internal locus of control. Therefore, these men may be more likely to practise safer sex at certain times. Thirdly, it was argued that externals would have difficulty in initiating safer sex. Those times that they do have safer sex may actually be the result of factors outside of themselves, such as being persuaded by a sexual partner. As previously stated, externals are highly susceptible to outside influences (Phares, 1976). As such, their behaviour will be more unpredictable than internals who make more consistent autonomous decisions. This might explain externals' lack of consistency in practising safer sex. Kotarba and Lang (1986) found that some externals had initially tried safer sex at the outset when media panic was at its highest but then returned to previous sexual practices (Kotarba and Lang, 1986).

It is important to note that while this study found that the high risk group tend towards externality, this group also included individual subjects who did tend towards internality. This parallels the findings of Kotarba and Lang (1986) who suggest that those internals who do have unsafe sex tend to have what they term a "systemic theory of AIDS". These men believe that the holistic well-being of the body would make its resistance to disease strong, and thus they could continue to engage in high risk activity. The health strategies which these men employ, and falsely believe will protect them, include

regular check-ups, exercise, sufficient sleep and stress management. Some also believe that psychological well-being can protect them from AIDS. Indeed, the healing movement based on the works of Louise Hay (1988), adheres to the belief that it is essentially psychological vulnerabilities that allow any physical illness to develop. Hay suggests that "gay men created a disease called AIDS" as an expression of their sexual guilt and low self-esteem (Hay, 1988, p. 137). Accordingly, learning to love oneself and to accept one's sexuality is believed to cure AIDS. It is arguable that people who hold these beliefs may feel in control far beyond the realm of reality. Thus certain internals may thus demonstrate an omnipotence which places them at serious risk.

In addition to the locus of control, the study also compared the two groups across a broad range of psychosocial factors which were located within the framework of the Health Belief Model. This study suggested that people with an internal or external locus of control might approach several of the HBM factors in a different way. Since it has been shown that the high risk group tended to have an external locus of control and the low risk group tended to have an internal locus of control, the locus of control construct may shed further light on the possible reasons for the differences between the two groups on the HBM dimensions. Thus it is possible that gay men with an external locus of control would be at a greater disadvantage especially when dealing with the modifying factors influencing health behaviour related to possible HIV infection.

The HBM argues that preventive care taken by a person to prevent a particular disease depends on that person's perception

that he or she is personally susceptible to it and that the disease will have serious consequences. The first two dimensions of the HBM, as adapted to this study, concern individual beliefs about personal susceptibility to contracting HIV and the perceived severity of HIV infection/AIDS. The study assumed that virtually all gay men who are aware of AIDS know that it is a potentially fatal disease and are in no doubt as to the severity of the disease. The attitude survey reflected this clearly as 100% of the high risk group and 96% of the low risk group agreed that South African gay men should be as concerned as American gay men about HIV infection (Table 12). However, perceptions of personal susceptibility were another matter. The high risk group in this study believed overwhelmingly that they were at little or no risk for HIV infection (Table 6). This was in spite of the fact that on the sexual behaviour survey, high risk group members reported participation in sexual practices which they knew to be unsafe. The results gave a striking confirmation of the findings of Bauman and Siegel (1990) and Fitzpatrick et al. (1990) that gay men who practise unsafe sex tend consistently to underestimate the level of risk of their sexual behaviour when asked to subjectively rate it on a rating scale. The low risk group, in comparison, accurately assessed their level of risk (Table 6). As externals fail to see a link between their behaviour and the level of risk it might present to them, it may be postulated that the high risk group, which mainly comprises externals, would be poor at evaluating their susceptibility. This supposition was confirmed.

Of particular interest to this study is the HBM dimension

of modifying factors. Research has shown that externals are highly influenced by outside factors. They tend not to employ autonomous thinking and evaluation when confronted by outside influences. For this reason modifying factors which either motivate gay men to change their sexual behaviour or encourage them to continue unsafe sex will have a more powerful influence on men who are externals. The various modifying factors and their relation to the high risk group in particular will now be examined.

Personal risk may be modified by the particular sexual relationships formed by a person. The high risk subject group tended to be single and to have multiple sexual partners in contrast to the majority of low risk group members who indicated that they were in an exclusive relationship (mean length of 2 years) at the time of responding (Table 4.1). A strong emphasis in the current AIDS education programme is on exclusive relationships as a way of lowering the risk of HIV exposure. Certainly those who have ongoing unsafe sexual encounters with multiple partners (as indicated by the majority of the high risk group members) are at greatest risk for exposure to the virus.

However, a number of problems exist with the exhortation to monogamy which has proved to be a rather naive hope on the part of AIDS workers. Firstly, those people who advocate monogamy often have an agenda which includes persuading people to adopt their moral positions towards the control of sexual expression rather than out of any genuine concern for the lives of gay men (Watney, 1987). Choosing to have recreational sex for its own sake has been seen historically as a highly subversive act by

governments and religious bodies inter alia. Gough and MacNair (1985, p.10) have referred to these conservative bodies as the "sex police", and note that they are equally opposed to gay sexuality and its expression.

The way in which such moralistic views have been incorporated by the gay community itself is indicated in the attitude survey in which 32% of the high risk group and 34% of the low risk group agree that "gay men who have unsafe sex with multiple partners are to blame for the AIDS crisis" (Table 12). Gay men are often condemned as "promiscuous". Promiscuity is a theological concept stemming from Judeo-Christian doctrine in the tradition of patriarchal morality which is intrinsic to the institutions of Christian marriage and child-rearing - monogamy is thus equated with morality. Recreational sex outside of marriage and not for the purposes of procreation and same-sex relationships are thus especially threatening to the proponents of such dogma (Neale, 1992; Watney, 1987).

The above negative views towards the free expression of gay sexuality have resulted in the social and legal oppression of gay men and lesbians. When oppressed groups incorporate such negative views about themselves they become the victims of self-oppression. With gay people, self-oppression is achieved when the gay person has adopted and internalised heterosexual people's definitions of what is good and what is bad (Hodges and Hutter, 1974). The notion that gay men "deserve" AIDS by virtue of their behaviour and that the consequences of illness are the appropriate punishment for aberrant behaviour has had a serious effect on the self-perceptions of gay men (Watney, 1987). The

attitude survey revealed that 16% of the high risk group and 14% of the low risk group sometimes thought that AIDS was "some form of punishment for loose sexual morals" (Table 12). Such internalised homophobia has increased since the advent of AIDS and could divide the gay community (Hirsch and Enlow, 1984).

A recent viewpoint holds that some gay men are "addicted" to sex (Quadland and Shattls, 1988). The attitude survey (Table 12) revealed that the majority of men in both subject groups did not agree that men who still have unsafe sex were "sex addicts". The notion of "sexual addiction" is a difficult one to discuss in isolation from the manner in which it is used by moralists whose primary concern is not with protecting those at risk (Quadland and Shattls, 1988; Watney, 1987). Some men may rely solely on sexual activity for self affirmation and may need to be helped to obtain it from other sources. However, the hope of some AIDS workers that gay men could all form long term exclusive relationships is highly unrealistic. Apart from the difficulty of finding a compatible partner shoul . one wish to have one (an awesome challenge for gays and heterosexuals alike) it presumes that all people want such a relationship. Human relationships take many forms and can be extremely creative according to the needs of the people involved. Three-way partnerships, sexual communes, open relationships or simply emotionally satisfying sexual encounters with many men may be the route chosen to fit with a particular man's needs. In the attitude survey (Table 12) it appears that many of the respondents would agree. Of the high risk group, of whom the majority were single and had multiple sexual partners, 63% agreed that one partner relationships were

not a realistic choice for all men. Of the low risk group, of whom most were in exclusive relationships, 46% similarly concurred. However, it must not be forgotten that many gay men do want long term relationships but for various reasons (e.g. difficulty with intimacy, fear of being openly gay, lack of social skills etc.) are unable to form them. Helping such men to overcome or resolve their problems through appropriate interventions (e.g. assertiveness and communication skills training, psychotherapy) such that they can form good relationships may be a further way of reducing their risk of HIV exposure.

AIDS education and the provision of information on safer sex is another modifying factor and remains one of the most critical factors which could encourage gay men to change their behaviour. The source of such information may vary for different people. However, both groups indicated that the public media, especially magazines, newspapers and television, played a large role in providing information (Table 11). An inherent problem with tele-education is that material is strenuously censored and AIDS awareness messages tend as a result to be vague and infrequent (Neale, 1992). Externals require ongoing reinforcements which provide clear guidelines for safer sex.

It is notable that family doctors were seen as having the least influence over both low and high risk groups as a source of information. This is extremely worrying as most people with a health issue go to their general practitioner as their first port of call. Karstaedt (1992) has emphasized that good doctor-patient communication is an essential component of the management

of HIV disease. It is also essential in helping to prevent HIV infection in the first place. Doctors who harbour discriminatory attitudes towards gay persons may be uninterested in informing themselves of the specific health concerns and needs of their gay clients. Moreover, many general practitioners may not see themselves as playing a role in preventive health care and hence fail to see the importance of HIV counselling for their clients. This is unfortunate since externals are highly responsive to authority figures, and doctors and other professional AIDS workers could play a powerful role in persuading them to take preventive action.

It has been argued that the persuasive abilities of a gay man's social group are considerable, especially for those gay men with an external locus of control. The results of this study show that the gay community is indeed important to gay men in both groups (Table 3). The limitation of the question was that it did not ask in which way the gay community was important to the respondent. It could be postulated that the influence of caring friends might encourage a man to protect himself from the AIDS risk. It may equally be true that a gay man might view the gay community as a pool of potential casual sex partners and might be encouraged to continue possible risky sexual practices by those with whom he socializes and with whom he forms sexual relationships.

The influence of others in a person's cultural group would be a strong modifying factor for externals. In the case of AIDS this may be either to encourage him to protect himself from HIV

infection or to persuade him to continue risky behaviour in a communal sense of false security.

The extent to which a man is openly gay is another modifying factor which might also influence his behaviour. Stage theories pertaining to the development of gay identity often posit that the full integration of a positive gay identity is the culminating stage of identity development. Here the man fully incorporates a sense of himself as a man who is physically and emotionally invested in other men (Cass 1988). Isaacs and McKendrick (1992) have linked develop[illegible] closely with the emergence of healthy self-esteem.

Men who value themselves will value t[illegible] and it may be postulated that they will tend to invest more [illegible] protecting themselves from physical illness. The results of this study suggest that in the case of AIDS this is so. The men in the low risk group tend to have a more open sense of gay identity than their high risk counterparts (Table 2).

When men choose to be openly gay they must confront further issues. In particular, the political discrimination of gay men can have a destructive effect on the building of relationships. Such relationships must confront enormous societal prejudice. Living together openly in such a context might provoke levels of stress which either discourage gay men to attempt relationships or contribute to the demise of many relationships which are established. As closed relationships provide more protection from HIV infection it is clear that legal and social discrimination against gay men could be viewed as life-threatening in the long term (Schurink and Schurink, 1990).

Within the category of modifying factors are cues to action which encourage behaviour change. Knowing a person who is HIV positive, sick with an AIDS-related illness or has died from AIDS is considered in the literature to be a strong cue to action, and was thus included in the questionnaire. Such exposure is felt by many researchers to be one of the greatest influences on people to adopt health protective measures. However, in this study, the subjects in the low risk group were not found to have had significantly more exposure to such experiences (Table 10). This suggests that while the influence might be a strong one, it is either insufficient to influence behaviour in some cases or it loses its effect as the high risk person adapts to it and defences are re-erected. The locus of control construct might further explain why the high risk group did not curtail risk behaviour. Externals may have perceived the severity of the illness and have been afraid of infection yet, failing to see how they could reduce the threat by changing their behaviour, continued to engage in unsafe practices. Externals also require ongoing reinforcements for behaviour change. When the illness of another loses its salience, man who are externals might revert to previous unsafe sexual practices.

Finally, the reasons gay men in the high risk group did not take precautions against HIV infection provided more information concerning beliefs, perceptions and situational factors which might place them at risk (Table 8). By far the most common reason the high risk group gave for not adopting health protective behaviour was that "in the excitement of the moment precautions were forgotten". The sexual response itself may render it

extremely difficult to hold on to rational reason. Watney (1990) described the awful contradiction a gay man faces: sexual activity virtually requires a sense of abandon to desire, yet at the same time the participants are expected to think clearly with regard to other factors. Dealing with such a contradiction is difficult. Several men in the survey conducted by Schurink and Schurink (1990) report being overwhelmed by an especially desirable man and consequently failed to take precautions. Suggestions for avoiding such a risk include being prepared to have safer sex at all times. This would mean always having condoms within easy reach.

The second most frequent reason given for not taking precautions was that alcohol and other substances led to a loss of judgement. The drinking or drugging that takes place in many social settings presents an integral problem for gay men wishing to alter their sexual behaviour. Indeed, they are not only pleasurable in themselves but are often experienced to enhance sex by reducing inhibitions or leading to physical relaxation necessary for certain sexual acts. Externals would be particularly influenced by the social culture to adopt such behaviours as the social use of substances. Having these sources of pleasure taken away would represent a severe barrier with respect to the cost-benefit ratio of the HBM. Interventions would need to focus on other methods of socializing. The current emphasis on health may be a way to this. Encouraging men that healthy, fit bodies are more desirable both to themselves and to other men may encourage a reduction in substance use. Approximately 27% of both groups indicated respectively that AIDS

has already influenced them to reduce their intake of substances (Table 9). However, an accurate measurement of changes in alcohol and drug use was beyond the scope of this study.

The other reasons given by the high risk group for not taking precautions may be grouped into several general categories. These include the anxiety that a man's sexual partner might be turned off sex or be offended should precautions be discussed. Denial, postulated in Chapter 3 to be a probable attempt to manage anxiety, featured in responses such as "It won't happen to me". An inability to be assertive came through strongly in responses which showed that decision-making with regard to having sex and using precautions was left to the partner. Externals, feeling that control over themselves lies in the hands of more powerful others, are probably likely to be unassertive. A cognitive distortion which informs the belief that only men who look ill may be infected also led some men to fail to use precautions. A further false belief reflected by these results was that sexual behaviour could not be changed as it had become "too ingrained". Finally, the lack of continual reinforcement to adopt precautions led to some men becoming careless. As mentioned earlier, externals require ongoing outside reinforcement to have safer sex as they tend not to reinforce themselves.

1. Summary

It appears from the results obtained by this research report that men who have an external locus of control may be at greater risk of HIV infection. It was found that gay men who participate

in unsafe sex tend to be externals and seriously underestimate the level of risk to which they are exposing themselves. It has been postulated that because externals fail to perceive the link between health protective behaviour and the subsequent reduction in risk of contracting HIV, they may be less motivated to seek information on safer sex and fail to have safer sex unless continually persuaded to do so by outside influences. Outside modifying factors can also have a powerful negative effect, by either not protecting these men from unsafe sexual encounters or even encouraging them to engage in them.

If gay men who have an external locus of control are indeed at greater risk for HIV infection, AIDS prevention work needs to adapt intervention programmes to identify and help this group. This issue is further elaborated in Chapter 7.

CHAPTER 7

CONCLUSION

In order to be effective AIDS prevention campaigns must be researched comprehensively. Of critical importance is the examination of those factors which might encourage or impede the adoption of safer sexual practices.

A primary aim of this study was to establish whether gay men who placed themselves at risk for HIV infection by engaging in unsafe sexual practices tended to have an external locus of control. Previous studies of health behaviour have linked non-compliance to health protective regimens, with externality (Strickland, 1978). It was therefore postulated that gay men who are externals would have similar difficulties in taking preventive measures against AIDS. The present study found that gay men who had been placed in the high risk group did indeed tend to have an external locus of control.

The study also employed the Health Belief Model which described a number of psychosocial factors related to health behaviour in response to AIDS. Most alarming was the discovery that gay men in the high risk group perceived themselves to be at little or no risk for HIV infection. Further data highlighted the danger of alcohol and drug use before sex and the strong potential influence of social groups. Other research studies have confirmed these findings (cited in Kelly and Murphy, 1992).

Externals have been shown to be at a greater health risk than internals. The study has made the link between externality and unsafe sexual behaviour. It follows then that if this is

actually the case, AIDS intervention campaigns would need to incorporate the above findings into their risk reduction programmes. It is also essential that the efficacy of such interventions be evaluated. It was mentioned earlier that a schism often exists between research findings and their practical application. Kelly and Murphy (1992) note that few controlled studies evaluating the behaviour change impact of HIV intervention studies have been done.

If externals are at greater risk they would have to be identified. While the I-E scale can be utilized for this purpose it may be too long in its present form. Another version of the I-E scale may be more appropriate. It could also confuse the people asked to complete it as they would fail to see its relevance to AIDS.

1. Limitations of the present study

While this study has made a significant link between externality and unsafe sexual behaviour, more extensive research into this particular area would be required to confirm that there is indeed a causal relation. Furthermore, the sample groups are too small to produce sufficient data to allow a confident confirmation of the hypothesis. Hence the findings have been taken as revealing a tendency.

The problem of response set may exist as this was a self-report study. Subjects who were practising unsafe sex may have neglected to provide this information, as they might have believed that such responses were not socially desirable.

As mentioned previously, only white gay men were included in the subject groups. It is essential that gay men of other population groups be included in future research. In addition, heterosexual subjects may also be studied when examining locus of control and its relation to AIDS preventive behaviour.

Finally, the locus of control construct and the Health Belief Model were employed in such a way as to complement each other in this study. However, they may be understood to intersect due to their shared theoretical foundations in social learning theory. In fact, it has been argued that as the HBM is based on self-efficacy and outcome expectancies, it can be incorporated within the concept of locus of control (Rosolack and Hampson, 1991). However, the validation of such a supposition was beyond the scope of this study. Future researchers may wish to investigate further.

2. Implications for further research

Once external groups have been identified the intervention programme must then be adapted to them. Two options appear to present themselves. Either the person must be helped to develop a more internal orientation or the programme must be adapted to the external person's specific needs.

Attempts to shift externality would require interventions which would aid such people to perceive the consequences of their actions and regain a sense of control.

At the individual level, cognitive-behavioural techniques have been found to be effective. The assumption of cognitive-behavioural risk reduction programmes is that people, once

appropriately risk-sensitized, will alter their high risk behaviour if they acquire behavioural skills for change implementation. Skill areas training includes teaching safer sex behavioural competence; assertion training to communicate safer sex commitment to sexual partners or to resist coercion to engage in unsafe sex; self-management and problem solving skills to anticipate, avoid or develop alternative ways of coping with risk "triggers" and the reinforcement of behaviour changes (Fisher and Fisher, 1992; Kelly and Murphy, 1992). Training in groups has been found to be especially effective due to the support they offer (Quadland and Shattls, 1988). It is clear how these strategies could potentially shift an external locus of control.

A number of studies have shown the efficacy of such skills training (cited in Fisher and Fisher, 1992 and in Kelly and Murphy, 1992). At the community level, interventions would incorporate political action. It was argued in this study that membership of an oppressed group could result in the adoption of an external locus of control. Gay men as a politically oppressed group suffer many hardships. Political activism would then be the appropriate forum in which such men could regain a sense of their own power. The decriminalization of gay and lesbian sexuality should also be a priority for AIDS workers operating in the gay community (Shurink and Shurink, 1990).

Not all men who are at risk will approach community health projects or AIDS counselling centres for help, especially the target group of externals who do not perceive themselves to be at risk. Such men would need to be reached by community initiatives. Bearing in mind the composition and characteristics

of the external locus of control, such campaigns would again need to be adapted to provide, for example, ongoing reinforcement, the recruitment of popular and influential men in gay social groupings, condom distribution, messages which correct false beliefs and misperceptions etc.(Fisher and Fisher, 1992).

Primary prevention has been the focus of community psychology in the area of mental health. Community intervention to prevent AIDS thus falls within the ambit of primary prevention. Such p ogrammes use a wide variety of interventions such as the dissemination of educational material, safer sex campaigns, distribution of condoms and fund-raising efforts which raise AIDS awareness (Fisher and Fisher, 1992; Kelly and Murphy, 1992). However, the point has already been made that risk reduction interventions now need to address the other factors responsible for behaviour change and maintenance which have been identified in this study. Research on these factors at community level is still in its earliest stages (Kelly and Murphy, 1992), but some studies have been done. For example, one study asked gay bartenders to identify those gay bar patrons who were most popular with their peers. These men were trained to disseminate risk reduction strategies to their friends whom a later survey showed had decreased their risk behaviour (Kelly and Murphy, 1992). This study was relying on the factor which suggests that gay men will be influenced by important members of their social group.

The following are some suggestions which arise out of AIDS prevention research and from the findings of this study.

Kelly and Murphy (1992) have stated that it is essential that better linkages are made between HIV prevention programmes and theory. By approaching AIDS behaviour change from the perspectives of cognitive-behavioural and social learning theories for example, they argue that researchers will be better able to encourage realistic vulnerability appraisal and to help people gain behavioural competencies to effect behaviour change and maintain it (Kelly and Murphy, 1992). Fullagar and Berling (1983) argued that social learning theory may provide a better framework than existing models for explaining and predicting behaviour in response to advertisements. This has important implications for the construction of safer sex advertisement campaigns.

Safer sex campaigns are more successful when they are rooted in the recognition that HIV is a community issue requiring a community based response (Watney, 1990). Gay pride plays a major factor in preventing HIV transmission by establishing safer sex as a gay cultural practice. Thus safer sex education needs to aim to provide a level of general, collective cultural empowerment, encouraging gay men to identify one another's needs, and to think of themselves as a community united in response to the epidemic, i.e. seeing safer sex not as a set of techniques but as a way of life (Watney, 1990).

Community empowerment involves political activism such as creating monitoring bodies which challenge and expose media reports that are anti-gay, ambiguous, misleading, conflicting or inaccurate. It would also include fighting discrimination of persons with HIV or AIDS and implementing appropriate legislation

to protect these groups (Schurink and Schurink, 1990; Watney, 1990). Finally, it is necessary that those safer sex advisers who are invested in promoting particular moral beliefs at the expense of developing an understanding and respect for the full range of their clients' consensual sexual needs and pleasures, are monitored (Watney, 1990).

3. Summary

The most important question in the AIDS prevention area concerns how different persons can perform particular kinds of health-enhancing behaviours, given their particular environment and its various influential factors. In particular, by considering the control beliefs of gay men, it should be possible, as Rosolack and Hampson (1991) have argued, to enhance not only predictions of, but also interventions for health-promoting behaviours.

Any comprehensive strategy to fight AIDS requires the participation of social scientists such as psychologists (Shurink and Schurink, 1990). Rosolack and Hampson have articulated the importance of psychology in AIDS prevention:

> "The study of personal behaviours is now crucial for advances in the expanding field of physical health care. Psychologists can contribute a great deal by integrating psychological variables into models of disease, especially by refining formulations of less-studied aspects of personality-health relations" (1991, p. 165).

It is the hope of the author that this research report may make some small contribution to the ongoing fight against AIDS.

APPENDIX A

CATEGORIES OF HIV INFECTION

The various categories of HIV infection are examined here in more detail:

HIV Infection/Seropositivity - People who are infected with HIV are initially asymptomatic although antibodies against the virus usually develop three weeks to three months after exposure and can be identified by testing. There are a number of ways in which HIV infection is determined, including methods which detect anti-HIV antibodies and methods which detect the virus itself. The most commonly used test in South Africa is the enzyme-linked-immuno-absorbent assay or ELISA which detects antibodies to HIV-1 and HIV-2 (Windsor, 1992) Once the antibodies have been detected through screening the person is said to be antibody positive. In the earliest stage of infection when the antibodies have not yet developed the person is said to be antibody negative. The HIV positive person usually appears and feels healthy in every way (Eloff, 1988). As discussed earlier, a proportion of infected persons will go on to develop AIDS-related illnesses and full blown AIDS.

Acute HIV Disease - This is a glandular type fever which occasionally occurs with sudden onset after initial infection by the HIV virus and before antibodies develop. It can last from three to fourteen days and symptoms usually disappear spontaneously. Acute HIV disease is characterised by generalised lymphadenopathy, rash on the trunk, fever, pain in muscles and

joints, acute encephalitis (infection of the brain) and diarrhoea (Eloff, 1988).

Persistent Generalised Lymphadenopathy (PGL) - Swollen lymph glands in two or more sites (excluding the groin) persisting for more than three months characterise this condition. Usually the person remains healthy and in rare cases the symptoms may disappear. In a separate subgroup patients become unwell and suffer from associated fatigue, anorexia (loss of appetite), fever, night sweats and diarrhoea. Typically, this is the group which often progresses to developing AIDS (Eloff, 1988).

AIDS-Related Complex (ARC) - While AIDS is defined by the presence of opportunistic diseases predictive of immuno-suppression in the absence of other known causes, far more HIV positive persons show symptoms of illness which relate to immune system compromise but do not meet the full diagnostic criteria for AIDS (Kelly and St. Lawrence, 1988). These illnesses include among others oral candidiasis (thrush), oral leucoplakia (white patches on the tongue), persistent generalised lymphadenopathy, splenomegaly (enlarged spleen) and skin rashes (Eloff, 1988; Jentsch and Klugman, 1992).

At first such persons were said to have Pre-AIDS, Prodromal AIDS or Lesser AIDS diseases. However, these terms were found to be unacceptable as it has still not been established that all infected persons will inevitably develop AIDS. The term AIDS-related complex (ARC) was then used to designate those diseases and clinical symptoms of immuno-suppression without the opportunistic diseases characteristic of full blown AIDS. It must be noted that as it encompasses such a variety and differing

degree of symptoms and illnesses, ARC is of limited precision as a diagnostic category (Kelly and St. Lawrence, 1988).

Acquired Immune Deficiency Syndrome (AIDS) - This is the final stage of HIV infection. AIDS is diagnosed when the immune system is so compromised that the person develops specific rare opportunistic infections or tumours. A person with a healthy immune system can easily fight off infections. However, for the immuno-suppressed person the same common and mildly pathogenic organisms can be deadly. It is the opportunistic infections and tumours which to date have always proved fatal for persons with AIDS (Eloff, 1988). Recent statistics indicate that it approximately 50% of infected persons take 10-20 years to reach this stage (Windsor, 1992).

The following diseases and infections are commonly associated with AIDS: Kaposi's Sarcoma, Pneumocystis Carinii Pneumonia, Candida infections (thrush), Herpes Simplex, AIDS-related dementia and a host of other malignancies and infections caused by protozoa, viruses, fungi and bacteria (Jentsch and Klugman, 1992; Kelly and St Lawrence, 1988).

Kaposi's Sarcoma (KS) is a malignancy which was first identified in the late 1800's as a disease which afflicted mainly elderly males of Jewish or Mediterranean descent and Africans. It attracted little attention as it was rare and had a very slow growth course. However, it has become prevalent among AIDS patients, occurring in approximately 33 per cent of all cases. It has also become highly virulent and aggressive. For reasons not yet understood, it appears to be more prevalent among gay AIDS patients than any other group at risk.

Kaposi's sarcoma usually first appears as red, purple or blue, palpable, non-painful tumours which can occur anywhere on the body. They frequently increase in number and may be accompanied by lymphadenopathy, fever, weight loss and night sweats. Patients do not die from Kaposi's sarcoma but from the infections that co-occur with it (Kelly and St. Lawrence, 1988).

Pneumocystis carinii pneumonia (PCP) is the most common life threatening opportunistic infection associated with AIDS. It occurs in approximately 60 percent of recently diagnosed AIDS patients and may be even more prevalent towards the end stages of AIDS. The pneumonia is caused by a bacterium which can be identified in lung or bronchial secretions. PCP has a mortality rate of up to 60 per cent per acute episode. Early symptoms include intermittent fever, chills, weight loss, cough and chest discomfort and shortness of breath. The acute onset of the disease usually occurs within two to six weeks of these symptoms (Kelly and St. Lawrence, 1988).

Attempting to place all these diseases in categories such as HIV infection, ARC and AIDS has proved clumsy and confusing. For example, lymphadenopathy is a symptom which may be located in more than one category. For this reason the World Health Organization (WHO) has developed a staging system for HIV infection and disease which consists of 4 clinical stages which precisely describe and categorise HIV disease[4] in contrast to the more general ARC/AIDS dimension (WHO, 1992).

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[4] In fact, many health workers prefer the more accurate and inclusive term "HIV disease" to "AIDS" which describes only the terminal stages of the syndrome.[REF]

APPENDIX B

AIDS IMPACT QUESTIONNAIRE

AIDS has had a profound effect on the South African gay community. This study aims to examine your response to the AIDS crisis. Research is essential when developing health intervention and educational programmes designed to help gay men to protect themselves from contracting the AIDS virus. The data you provide in answering this questionnaire will be a valuable contribution towards this goal.

This questionnaire was designed to be filled in by the following persons only:

- South African men who have been sexually active for at least 12 months and whose sexual relationships are primarily with other men. This excludes men who are bisexual (those who have sexual relationships with both men and women) and/or those who are married.

The questionnaire consists of 22 questions. The questions either provide spaces to write your answer, or option blocks where you can tick the applicable answer/s. Please answer every question as honestly and as accurately as possible. Please note that you do not have to give your name or any other identifying characteristics.

THIS QUESTIONNAIRE IS COMPLETELY CONFIDENTIAL.

Envelopes are available should you wish to seal your responses. Unfortunately, the questionnaire is only available in English - apologies to other language speakers for any inconvenience this may cause.

You may return this questionnaire to the researcher personally or you may post it to the following address:

Mr Anthony Cave
Research Report
Applied Psychology Department
P. O. Wits
2050
South Africa

This study forms part of a Masters degree in Clinical Psychology at the University of the Witwatersrand.

AIDS IMPACT QUESTIONNAIRE

1. What is your age?

2. Please specify your population group (e.g. White, Black etc.)

3. What language do you usually speak?

4. What is your highest educational qualification?

5. What is your present occupation, if employed at present?

.....

Unemployed

6. The following 7 point scale represents a continuum of sexual behaviour where 0 = exclusive heterosexual sex and 6 = exclusive gay sex. 3 would indicate equal amounts of heterosexual and gay sex. Please circle the number which best describes your sexual behaviour.

0 1 2 3 4 5 6

7. Please indicate by encircling the appropriate number from 1 to 5 to what extent you regard yourself as out of the closet? (to be "out of the closet" to a great extent is to be fully open about your being gay to friends, family and employers; to not be "out of the closet" at all would mean that you alone know that you are gay)

Not at all 1 2 3 4 5 To a great extent

- Please indicate by encircling the appropriate number from 1 to 5 how important the gay community/subculture is to you?

Very unimportant 1 2 3 4 5 Very important

8. What is your current relationship status?

Single; no sexual partners		Single; multiple sexual partners.	
Single; one regular sexual partner		Coupled; exclusive sexual relationship	
Coupled; relationship permits other sexual partners		Coupled; other sexual partners without partner's knowledge	

Other (specify).....

9. If you are presently part of a couple, for approximately how many days, months or years have you been involved?

Days:		Months:		Years:	

10. Please indicate which of the following sexual behaviours you participated in during the past 12 months (Tick as many as are applicable):

Mutual masturbation (wanking, jerking off)	
Mutual massage	
Hugging, rubbing or friction activities (frottage) without insertion of penis	
Oral sex (fellatio, blowjob) to orgasm using a condom	
Oral sex (fellatio, blowjob) to orgasm without using a condom	
Digital-anal activity (hand-anus contact, fisting)	
Oral-anal activity (mouth-anus contact, rimming)	
Anal intercourse (fucking) using a condom	
Anal intercourse (fucking) without using a condom	
Celibacy (no sex at all over past 12 months)	
Sharing sex toys or devices (eg: dildoes), enema or douching equipment	
Watersports (sex involving urine)	
Social or "dry" kissing	
Deep or "french" kissing	

11. How risky do you think your current sexual behaviour is in terms of the likelihood of being exposed to the AIDS virus?

Not at all risky		Very risky	
Not very risky		Highly risky	
Risky			

12. Thinking back over the last 12 months how often did you take precautions to avoid the risk of being infected with the AIDS virus when having sex?

N.A. - did not have sex over the past 12 months	100% of the time (every time)	80% of the time	50% of the time	20% of the time	0% of the time (never)

13. If you did take precautions, which did you take?

N.A. - did not take any measures		
	Yes	No
Exclusive sexual partner whom you know to be HIV negative		
Made use of condoms		
Fewer sexual partners		
Safer sex practices		
Avoided casual sexual partners		

Other (Specify):.....

14. If you did not take precautionary measures, what was the reason? (Tick as many as are applicable)

	Yes	No
In the excitement of the moment precautions were forgotten		
I lack information as to what precautions to take		

I was drunk or stoned and thus not being as cautious as when sober		
I couldn't care		
I was too embarrassed to bring the subject of precautions up		
I have had sex with one exclusive partner for more than 10 years so precautions are unnecessary		
I was reluctant to offend my partner who might think he was being accused of being untrustworthy/promiscuous		
It won't happen to me		
My partner might have been put off having sex if I had started talking about the dangers of AIDS		
I didn't have a supply of condoms		
I know my sexual partner/s has/have tested negative for the HIV virus		
I was pressured into having sex		
If my sexual partner looked healthy then I didn't worry		
I was afraid that my partner might think that I had AIDS if I suggested taking precautions		
I am not scared		
Condoms interfere with my enjoyment of sex		
My partner disliked using condoms		
I'm in a high risk group of gay and bisexual men so it's inevitable that I'll contract AIDS anyway		
My friends have told me the risk of getting infected is actually very low		
My sexual behaviour is too ingrained to change at this stage		
It gives me a thrill to have risky sex, I like flirting with danger		
I was very careful when I first heard about AIDS but lately I've been careless		
I always leave it up to my partner to decide		

I've already tested negative for the AIDS virus so now I don't have to worry		
We're all going to die someday anyway and I want to make the most of my life now		

15. Has the AIDS disease influenced your behaviour in the following ways?

	Yes	No
to practice sex with one exclusive partner whom you know to be HIV negative?		
to stop visiting certain places for sexual purposes?		
to practice only safer sex		
to take better care of your health (proper exercise, food and sleep)		
to cut down on the usage of alcohol and/or drugs		

16. What do the initials AIDS (VIGS) stand for?

.....

17. Please indicate which of the following statements concerning AIDS are true or false.

	True	False	Don't Know
AIDS is caused by a virus			
There is a cure for AIDS			
There is a vaccine against AIDS			
The AIDS virus may be contracted from blood and blood products			
All blood donations are tested for the AIDS virus			
The AIDS virus can be contracted by sharing washing, eating and drinking utensils			
The AIDS virus can be transmitted by sharing needles and syringes			

Douching before having sex can prevent contraction of the AIDS virus			
The AIDS virus can only be transmitted by homosexual intercourse			
A woman who has the AIDS virus cannot carry it over to her unborn child			
Douching after sex can prevent contraction of the AIDS virus			
A water-based lubricant like KY jelly is the only lubricant considered safe when using condoms			
If your blood test is positive (contains antibodies to the AIDS virus) you can spread the AIDS virus			
If your blood test is negative you need never worry again			
All infected people show positive on the blood tests			
The blood test is immediately positive if you have been in contact with the AIDS virus			
Names and addresses of persons with AIDS are kept on a register and are available to anyone			
Exercise, proper nutrition and getting enough rest can prevent contraction of the AIDS virus			

18. Do you consider yourself well-informed about AIDS?

Yes	
No	

19. Do you know of any of the following people?

	Yes	No
someone who is HIV positive		
someone who is presently suffering from one of the AIDS-related diseases		
someone who has died of AIDS		

20. Which of the following factors (if any) have influenced you to change your sexual behaviour in order to avoid contracting the AIDS virus?

Learning that someone you know has AIDS	
Newspaper reports on AIDS	
Articles in Exit on AIDS	
Articles in magazines on AIDS	
Lecture/s on AIDS	
Pamphlets on AIDS	
Television programme/s on AIDS	
Own family doctor	
A radio programme about AIDS	
Gay counsellor/s	
Seeing photographs of persons with AIDS	
Videos/films about persons with AIDS	

Other (Specify).....

Which of the above (if any) influenced you the most?

.....

21. Please indicate whether you agree or disagree with the following statements.

	Agree	Disagree
Gay men in South Africa should be as concerned about contracting the AIDS virus as gay men in North America		
Gay men who have unsafe sex with multiple partners are to blame for the AIDS crisis		
Haemophiliacs and children are the innocent victims of the AIDS epidemic		
Gays who work out at the gym are at little risk for contracting the AIDS virus		

I can't help thinking sometimes that AIDS does appear to be some form of punishment for loose sexual morals		
There is a greater chance of contracting the AIDS virus by going to the baths		
It is not possible for all gay men to accept one partner relationships as a realistic choice		
AIDS has a positive side as it will lead to more intimate, committed long-term relationships		
Men who still have unsafe sex are compulsive sex addicts		
I am aware of and/or have experienced more anti-gay prejudice since the advent of AIDS		
The dangers of AIDS infection have been highly exaggerated		

22. In the following question each item consists of two alternative statements lettered a or b. Please select the one statement (and only one) which you believe to be more true - rather than the one you think you should choose or the one you would prefer to be true. In some instances you may agree or disagree with both statements but be sure to select the one you believe to be more true. In other words, please answer every item in this question. Circle the letter (a or b) of the statement you select:

1. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons we have wars is because people don't take enough interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognised no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them can't get along with others.

8. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of a well prepared student there is rarely if ever such a thing as an unfair test.
    b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
    b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
    b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.

14. a. There are certain people who are just no good.
    b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.
    b. Many times we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
    b. Getting people to do the right thing depends upon ability; luck has little to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
    b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
    b. There really is no such thing as "luck".

19. a. One should always be willing to admit mistakes.
    b. It is usually better to cover up one's mistakes.

20. a. It is hard to know whether of not a person really likes you.
    b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good things.
    b. Most misfortunes are the result of lack of ability, ignorance, laziness or all three.

22. a. With enough effort we can wipe out political corruption.
    b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.
    b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.
    b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over the things that happen to me.
    b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.
    b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.
    b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.
    b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.
    b. In the long run the people are responsible for bad government.

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