

**THE HEALTH BELIEF MODEL AND MOTIVATIONS
FOR/AGAINST HIV-TESTING.**

By

MATSHEPO CATHERINE NEFALE

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Supervisor: Professor Graham Lindegger

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ABSTRACT

This dissertation has made an attempt at exploring the psychological factors that motivates individuals into opting for or against undertaking an HIV-test. The Health Belief Model is used to ascertain its predictive powers towards the motivation for undertaking such a test. Literature on HIV-testing indicates non-exploration of voluntary HIV-testing, as opposed to massive reporting on mandatory HIV-testing. Therefore, the focus of this dissertation is on voluntary HIV-testing. The sample used for the study comprised of antenatal mothers who were offered HIV/Aids education and then presented with an option of either undertaking the HIV-test, or not.

The results of the study indicate that the Health Belief Model has failed in its predictive powers towards motivations for or against HIV-testing. However, the study provided valuable psychological factors that are associated with the decision to undertake the HIV-test, which will be important for future research on HIV/Aids and on the control in the spread of the disease.

PREFACE

I declare that this whole thesis, is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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CHAPTER 1

OVERVIEW

Aids is a worldwide concern which has affected almost all countries, including South Africa. The fact that the disease is spreading at an alarming rate has compelled researchers to investigate ways of controlling its spread, especially since there is not yet a vaccine or cure available for the disease. This disease does not only attract attention to researchers because of its devastating effect on people's lives or the challenges it poses on health psychology in a way no other problem has to date, but it also introduces researchers to five trends and issues that have broad implications for public health in the future. These issues are early identification of people who are at risk for the disease, the rising expectations for successful behaviour change programs, the growing populations of those who are coping with chronic disease, the increasing shift to include community public health perspectives and the emerging need to address health problems on a global scale (Chesney, 1993). During the 1980s, despite efforts to curb it, HIV has spread rapidly and silently around the world. By the Spring of 1991, the World Health Organisation had estimated the number of HIV infections worldwide to be 9 to 11 million. This figure is projected to quadruple by the year 2000 (Smallman-Rayner & Cliff, 1992).

Changes in behaviour have, so far, been the only way through which the spread of the disease can be curbed. The World Health Organisation asserts that the best hope for controlling the spread of the virus is through changes in behaviour (Abrams, 1991). These efforts to change behaviour result partially from knowledge about one's HIV status, which implies HIV-testing. However, beliefs and attributions that people hold, can influence their health by affecting their behaviour (Broome, 1989), thereby influencing their decision about whether to undertake the HIV-test or not.

Testing for the HI-virus involves testing for the presence of HIV antibodies and not for the presence of the virus itself. This is why, at times, the test is referred to as the

HIV-antibody test. The detection of an immune response to the virus, in the form of antibodies to the virus, is the most widely used form of testing (Gross 1989). The enzyme-linked immunosorbent assays (ELISA), the immunofluorescent assays, and the western blot analysis, are amongst the most common techniques used for testing the HI-antibodies. However, of these techniques, the most widely used is the ELISA (Bayer, Levine & Wolf, 1989), mainly because of its cost and ease of application, as well as its accuracy (Institute of Medicine, 1986).

Identification of individuals' HIV status can only be revealed through HIV-screening, which means that the most logical thing for individuals to do would be to undertake the HIV-test. However, in reality, this rarely happens. Despite the potential benefits of HIV-testing, several studies (Berrier et al., 1993, Hardy & Dawson, 1990, Kalichman & Hunter, 1993, Kelly et al., 1992, National Task Force on Aids Prevention, 1990) have shown that between 30% and 70% of persons with high risk behaviour histories have not been tested for HIV infection. (Kalichman, Somlai, Adair & Weir, 1996, p.593) In most cases, instead of willingly deciding to undertake the test, individuals find themselves in a situation where they are forced to undertake the test by circumstances at that time. An essential feature of the virus is that once an individual is infected, the virus can be transmitted from one individual to the next, with the result that Aids eventually develops. It does not necessarily mean, however, that once infected the individual develops Aids immediately. Some individuals are infected but do not develop Aids until after a considerable length of time. It is the fact that Aids is a fatal disease (Information Manual for Aids Educators, 1992) that instills fear in individuals decision to voluntarily undertake the HIV-test.

Many agencies tend to force individuals into undertaking an HIV-test because they have mainly the agency's financial interest at heart. These agencies include, amongst others, insurance companies, employment settings and hospitals. A situation like this normally puts an individual in a difficult position because on the one hand the implication of a positive test result could be seen as a death sentence, while on the other hand the implications of not undertaking the test may result in, for instance lack of employment or lack of proper treatment at the hospital. These difficulties give rise to various questions. Some of these include: should

individuals be forced to undertake an HIV-test as a precautionary measure, or should they be given the option to decide for themselves? Who should be targeted for testing? Does testing positive have a stigmatising effect on individuals or does it lead to better quality of life? These questions form part of ethical dilemmas involved with the issue of HIV-testing. In the next chapter, literature on some of these questions will be explored.

It is important that testing for the HI-virus is undertaken since the results of the test can produce data on methods of transmission, high risk behaviours and other information that is relevant to the provision of future services for those who are HIV-positive. Medical personnel can also be alerted, through a positive result, to the need for taking precautions with contaminated blood. A positive finding can motivate individuals and their partners to reduce or stop high risk activities, thereby engaging in protective behaviour. Knowing one's HIV-status allows one to start or to continue engaging in safer sexual practices, the assumption being that prevention is better than cure. This is especially important for HIV/Aids in the absence of a cure. However, there are also drawbacks and negative consequences to positive results, which among others, include discrimination, emotional and psychological problems. For instance, an HIV - test can alert individuals to the reality that a positive test result implies a silent death penalty which can also result in psychological death. This has implications for social relationships since it can lead to isolation, depression, suicide and many other related reactions that impede social interaction. It is therefore befitting to refer to Aids as a disease which has created three epidemics. The first epidemic refers to the epidemic of HIV infection. The second is the epidemic of the diseases characterised by the case surveillance definition of Aids. The third epidemic involves the social, cultural, economic, and political reaction to the HIV / Aids epidemics (Morin, 1988). Pre-test counselling allows the individual the opportunity to explore all possible ways of coping with the disease, should the results be positive. Support systems are also important at this initial stage of the diagnosis, so if before testing such structures are not available, networking in this regard can be effected. With HIV/Aids now being a notifiable disease, the social, economic and political implications of a positive test result becomes even more challenging, unless a change in attitude towards stigmatisation and discrimination is achieved.

The objective of the present study is to explore factors that lead individuals to undertake or not undertake an HIV-test, as not many individuals are forthcoming with regard to voluntarily testing for the presence of the HI-virus. The Health Belief Model is used in the study since it tends to provide a framework for analysing the determinants of health related behaviour - an important consideration in research is that ideally every research should be based on some theoretical framework.

In the chapter that follows, literature on HIV/Aids and theoretical models used to understand and predict behaviour will be explored. Chapter 3 will focus on the methodology to be used in the study, while chapter 4 will present the results of the study. Chapter 5 will offer a discussion of the results as well as conclusions drawn from the study. Flaws and future investigation areas will also be looked at, as a final phase of the research study.

CHAPTER 2

HIV/AIDS LITERATURE REVIEW

2.1 Introduction

The Human Immunodeficiency Virus (HIV), is a minute germ which occurs in humans and causes the body's protective system against disease to malfunction (Information Manual for Aids Educators, 1992). Evidence that the virus causes Aids was discovered by researchers who also identified the virus in 1983 and 1984 (Update, 1988). Several other findings supported this evidence by indicating that HIV can be found in virtually everyone who has Aids. Again, a significant proportion of persons who are HIV infected, develop Aids or Aids-related disease (Gunderson, Mayo & Rhame, 1989). The causal role of HIV in Aids is also illustrated by the high risk (30-50%) of perinatal HIV transmission, from an infected mother to her infant and the subsequent diagnosis of Aids in the infected infant (Update, 1988, p.35).

The HI-virus survives by entering the individual's bloodstream and spreading throughout the body. If an individual is diagnosed as being HIV-positive, it does not mean, however, that the individual has developed Aids, it is possible for one to survive for a considerable length of time with the HI-virus without being symptomatic. Gunderson et al. (1989) states that most people remain asymptomatic for at least eight years. On the average it can take from six to eight years from the initial infection with the HI-virus to the appearance of the first symptoms of Aids. The length of time before Aids develops largely depends on the patient's general state of health and what access they have to good health care (Information Manual for Aids Educators, 1992). It also depends on the level of exposure to stress, substances and being reinfected with the HI-Virus.

2.2 Testing for the HI-Virus

Organisations and researchers in the field of Aids have investigated why HIV-testing is essential. One of the many reasons which are advanced include patient care (Update,1988). Increased antibody testing is normally used as an adjunct to patient care. Patients with symptoms that suggest HIV-infection should be tested for the HI-virus as part of a diagnostic work-up. The second reason normally advanced for HIV-testing is the safety of donated blood, tissues and organs. Because the virus is transmitted through the blood, it therefore becomes important for organ/tissue/blood donors to be tested for the presence of the virus to make sure the virus is not being transmitted to the person receiving the organs/tissues/blood.

Infection control is another reason advanced for HIV-testing. It is believed / hoped that once an individual realises he/she is HIV-positive, this will enable him/her to recognise the importance of changing behaviour patterns to avoid reinfection and further spread of the virus. According to Kalichman and Hunter (1993) if individuals are detected early for the presence of the HI-virus, they will be afforded access to prophylactic treatment.

Testing of persons at increased risk of infection has been encouraged in the belief that knowledge of one's antibody status will motivate behaviour change which is appropriate for controlling the spread of HIV-infection (Zapka, Stoddard, Zorn, McCusker & Mayer, 1991). Chesney (1993) maintains that testing is likely to bring about a reduction in the incidence of high risk behaviour, both in those receiving positive test results and those receiving negative test results. It is perhaps for this reason that HIV-testing is usually incorporated in programmes aimed at promoting behaviour change. Miller, Turner and Moses (1990) believe that intervention strategies aimed at preventing the vertical transmission of HIV should rely heavily on testing and counselling.

A few of the reasons advanced above regarding HIV-testing illustrates the diversity of motivations for undertaking the test.

Attempts made at developing a public policy regarding HIV-testing sparked off a lot of controversy around HIV-testing. At the World Aids Day in Geneva in 1988, one of the issues discussed centred around whether "to test for the HI-virus or not". The debate gave rise to the formulation of "ethical guidelines" related to Aids, which drew worldwide attention to the issue. Laws and policies in this regard were even generated - a discussion of these follows in the following sections.

2.2.1 Mandatory vs Voluntary Testing

The question of how to encourage people to undergo HIV-testing was generated by the debate mentioned previously. Should individuals be forced to undertake the test or should they be given a choice in deciding for themselves?

This issue gave rise to conflicting views. Some argued for forced testing (mandatory testing) while others argued for free choice (voluntary testing). Views which supported mandatory testing argued that routine testing of individuals in certain age groups and on specific occasions such as admissions to a hospital, or application for a marriage license should be a priority (Bayer et al., 1989). In accordance with this point of view, a few states in the USA have passed legislation or have bills pending that would require anyone convicted or arrested for prostitution to be tested for HIV-infection (Miller et al., 1990).

On the other hand, some organisations/individuals argued for voluntary testing. Falco and Cikins (1989, p. 16) in an effort to support voluntary testing, points out the dangers of mandatory testing by stating that: "that kind of testing (mandatory HIV-testing) in effect becomes punitive rather than diagnostic when it is used to prevent people from obtaining jobs and to keep them from obtaining insurance". The above argument is clearly illustrated in instances where individuals are compelled, directly or indirectly to undergo HIV-testing when applying for an insurance policy. If the individual is found to be HIV-positive, cover is either refused, or benefits are kept minimal.

Further caution is emphasised against the use of mandatory testing on the motivation that such form of testing should only be used as a last resort because no treatment for the virus is as yet available. Buckingham (1987), Baker et al. (1989) and Anthony, Coetzee, Kent, Lindon and Van der Spuy (1992) maintain the use of mandatory screening only in cases where the justification on the basis of beneficence is made where therapeutic intervention is available or in cases when an infectious state puts others at risk merely through casual contact. Bayer et al. (1989, p.180) maintain that: "the general screening in the workplace is unjustifiable under ethical prerequisites because the usefulness of such screening for the protection of others is unsupported by epidemiological or clinical evidence". As a cure for HIV/Aids is not yet available, and the fact that transmission of HIV/Aids is not through casual contact, voluntary testing therefore, seems the logical form of testing.

It is therefore evident that arguments for and against mandatory testing were put forth, with the result that motivations for voluntary testing seem to outweigh those for mandatory testing. This is supported by Fehrs (1990, p.62) when he states that: "when the state of Oregon offered anonymous HIV-antibody testing in addition to confidential testing...the demand for testing increased by 50% during the first four months of the program".

2.2.2 Individuals Targeted For Testing

The next issue generated from the debate on HIV-testing, was the question of who should be targeted for testing. This is an important question since testing virtually everybody for the HI-virus would be difficult, if not impossible, and the costs incurred would be exorbitant.

Different views were also expressed in this regard. On the one hand, employment settings advocate that individuals applying for jobs at their workplace should be tested for the HI-virus before they can be offered employment. The implication here is that everyone applying for a job should be tested for the HI-virus. Those who test positive to the HI-virus are refused employment. The insurance industry also seem to support the notion of testing everybody who applies for insurance policies for the presence of the HI-virus. Their motives for this view being their concern over the high economic risk that HIV-positive applicants pose for cover.

With some companies there are already policies established which exclude health coverage for diseases brought on by "life-style" choice (Falco & Cikins, 1989). This is illustrated through the reduction in employee benefits and discrimination brought about by HIV-positive test results. With some companies, employment is totally refused (McKerrow, 1994). However, preliminary recommendations for the working paper on "aspects of the law relating to Aids" maintain that an employee shall not be obliged to inform his/her employer of the fact that he/she is an HIV-infected person (clause 5(1) of the draft Bill).

On the other hand, other views suggest screening of the so-called "high" risk group (Falco & Cikins, 1989). Here a distinction is made between individuals at higher risk and those at greatest risk. Jacobsen, Perry and Hirsch (1990) define individuals at higher risk to include prostitutes and patients with sexually transmitted diseases. People at greatest risk which they identified includes haemophiliacs receiving clotting factors, needle sharing intravenous drug users, and sexually active gay men. (We need to realise that earlier research on Aids was based on the gay community as it was seen as the most "at risk" group because of the history of the development of the disease). In the South African context, as well as on the progression of research findings on the disease, HIV/Aids is not only seen to be prevalent amongst the gay community, but is also evident in heterosexual communities. The World Health Organization (1990) asserts that focus on "risk groups" creates problems. They maintain that such classifications can be perceived as discriminatory and stigmatizing and may alienate the people most in need of services and support (WHO 1990, p.23). This might be true, especially if those people in need of services and support are not seen or identified as "at risk/target groups". In order to make a shift from focussing on "at risk groups" and "self-identified groups" it is recommended that focus be maintained on risk behaviours and target audiences respectively. By focussing on risk behaviour rather than risk groups, the problem of excluding individuals who are at risk, but have not been included in the category of risk groups becomes eradicated. The focus therefore becomes identifying lifestyles which expose individuals to the risk of contracting the HI-virus, irrespective of whether they are classified as risk groups or not.

2.2.3 Stigmatisation of HIV/Aids

Another issue generated from the debate on HIV-testing was the stigma normally attached to being identified as HIV-positive. Altman and Schultz (cited in Crandall, 1991) agree that one of the central aspects of the social response to the Aids epidemic has been the stigmatization of those infected. Research conducted by Herek and Capitanio (1993) and Crandall (1991) provides evidence for such stigmatisation from most members of the society. Glaser (1989, p.253) supports the above researchers by maintaining that persons with Aids have been isolated like lepers by friends, family and the community. This can sometimes extend to societal hostility and harassment (Herek & Glunt, 1988). The Presidential Commission on the Human Immunodeficiency Virus Epidemic argue that high stigmatisation of the disease has resulted in discrimination being one of the most significant barriers to reaching high-risk groups and implementing effective interventions (Miller et al., 1990). This, however, might change as a working paper on aspects of the law relating to Aids has been put in place, wherein HIV-infected individuals are being protected against discrimination (clause 2 of the draft Bill).

Siegel, Levine and Brooks (1989) in their study on motives of gay men for taking or not taking the HIV antibody test, found that one of the reasons why gay men did not take the test was the desire to avoid social discrimination and repressive governmental actions. This is supported by McKerrow (1994) in claiming that individuals who are found to be HIV-positive are either refused employment or are refused the benefits of medical cover. The insurance company, with its particular concern regarding the high economic risk HIV-infected applicants pose for coverage (Falco & Cikins, 1989) is also another area of particular concern as regards the issue of discrimination.

"...As long as discrimination occurs, and no strong national policy and rapid and effective remedies against discrimination is established, individuals who are infected with HIV will be reluctant to come forward for testing, counselling and care" (Miller et al., 1990, p.116). The World Health Organization (WHO, 1990, p. 9) also supports the above findings by stating that: "If having HIV/Aids leads to stigmatization and discrimination, then people

who are infected with HIV or those who are concerned that they may be at risk, are likely to avoid detection and contact with the health and social services".

Various debates concerning HIV-testing have been raised, with the general issue of the unwillingness in individuals to undertake the HIV-test voluntarily being highlighted. Possible reasons for this lack of willingness were advanced. It seems that exploring other dimensions regarding HIV-testing, such as the social and psychological ramifications of the test, might prove beneficial in clarifying the problem of testing. It is on these factors that the present study will focus, in so far as the factors impacts on the reasons why individuals decide to undergo/not undergo the HIV-test.

2.2.4 Socio-demographic variables and HIV/Aids

In South Africa, the HIV/Aids epidemic is complicated by a number of factors, amongst others being poverty, unemployment, migratory labour and cultural believe systems. Some South Africans, especially females, who experience poverty and unemployment, enter the sex workers industry in a quest to survive. This, undoubtedly, puts them at high risk of contracting the HI-virus. Many rural South African males migrate to urban areas to search for employment. Spending most of their lives away from their families makes them victims of multiple partners - a high risk for contracting HIV/Aids. According to the traditional African worldview man is seen as an inseparable whole with the cosmos (Mbiti, 1969), which, according to Sow (1980) is divided into the macro-cosmos, the meso-cosmos and the micro-cosmos. The meso-cosmos is the most important cosmic level for the traditional Africans because almost all forms of illness, disease, conflict, suffering, misfortunes, accidents and death are ascribed to this level (Viljoen, 1997). This cosmil level is the intermediate universe which functions as a no-man's land where genies, evil spirits, witches and sorcerers dwell (Van Dyk, 1999). From this perspective, witchcraft is believed to be the causal agent in HIV transmission and Aids. In Uganda, 50% of the sample in Luwero and Kampala believed that witchcraft caused Aids and 61% in Gulu, Northern Uganda attributed Aids to witchcraft (Baguma, 1997). The implications of this worldview on HIV/Aids transmission in South Africa is enormous. As long as individuals have no ownership on their role in the transmission and

curbing of the spread in the disease, control of the disease will remain a problem.

In exploring psychological factors associated with undertaking an HIV-test, the above issues needs to be taken into consideration. Literature on HIV-testing does not reflect much on these issues, as does research on HIV/Aids in general. One of the pressing issues in HIV/Aids research is the need for some theoretical framework on which research needs to be based. This forms the central theme of this study, and is discussed, in detail, below.

2.3 Theoretical Models Involved in HIV-testing

While six or seven theories of health behaviour exist, little literature, if any, examines HIV-testing based on some theoretical framework (Beardsell & Coyle, 1996). A study done by Kaplan (1989) on the methodological problems in the study of psychosocial influences on the Aids process has raised some concern regarding the lack of utilization of theoretical frameworks in the study of Aids. "Perhaps the major impediment to research on the Aids process is the failure of many researchers to specify a theoretical framework..." (Kaplan, 1989, p.277). This seems to also apply to research on HIV-testing.

From the earlier discussion on motivations for/against HIV-testing, several reasons for/against testing were advanced - none of which were based on a theoretical framework. Many of the reasons given revealed many complex psychological, social, cultural and economic variables that impact on the decision to undertake/not undertake HIV-testing. One of the few studies that utilized a theoretical framework to explain HIV-testing was a study conducted by Kalichman and Coley (1995) in which context framing in enhancing HIV-antibody testing was used. This study was based on the Prospect Theory which was developed by Kahneman and Tversky in 1979. According to this theory, risk-taking decisions are strongly influenced by the perceived cost of not taking the risk. Therefore, emphasizing a loss frame in a message, should increase the probability that an individual will seek medical diagnostic testing because the threat of learning one has a life-threatening illness is contrasted with the potential losses of not knowing. The results of the study did support the theory by indicating that "information framed in a personally and culturally relevant context" (Kalichman

& Coley, 1995, p.252) that stress the potential losses of not getting tested can motivate women to actually engage in conversations with their sex partners about HIV counselling and testing.

Models developed by social scientists to explain health behaviour could also be used in research on HIV/Aids. Some of these models, as listed by the World Health Organization (1989) include, The Individual Adoption Process Model, The Social Learning Theory Model, The Health Belief Model, and The Behavioural Causal Model. Bernard and Krupat (1994) add the Theory of Reasoned Action to the list. Bauman and Siegel (1987) also add the Fear-drive and the Dual-process models. It is important to note that these models deal with health behaviour on a broad spectrum. The models were developed with the aim that they will provide a framework for the analysis of the determinants of health behaviour (in a much broader sense), to understand health related behaviour and (in a much more specific sense), to predict health behaviour.

The aim of the present study is to focus on the more specific role of one of these models, ie. that of predicting health behaviour on, specifically, HIV-testing behaviour. One such model to be used is the Health Belief Model. This will hopefully provide a study that explores HIV/Aids based on some theoretical framework.

2.3.1 The Health Belief Model

2.3.1.1 Brief description

The Health Belief Model was developed in the early 1950s by a group of social psychologists at the U.S. Public Health Service in an attempt to understand the widespread failure of people to accept disease preventives or screening tests for the early detection of asymptomatic disease (Janz and Becker, 1984). According to Becker (cited in Marteau, 1989), the model was developed specifically to explain and predict behaviour in health contexts. Marteau (1989, p.5) defines the Health Belief Model as follows:

The likelihood of an individual undertaking a particular action is seen as a function of the individual's perceptions of their susceptibility to the illness, the seriousness of the illness, and the potential benefits and costs involved in undertaking the particular action.

According to Janz and Becker (1984, p.2) susceptibility refers to one's subjective perception of the risk of contracting a condition; severity concerns evaluations of both medical/clinical and social consequences of a disease; perceived benefits is defined as "beliefs regarding the effectiveness of the various actions available in reducing the disease threat"; perceived barriers refers to the "potential negative aspects of a particular health action".

The relation between the variables of the Health Belief Model has never been formalised or even explicitly spelled out, but on the basis of discussions of the model and the way researchers using the model analysed their data, Seibold and Roper (cited in Stroebe & Stroebe, 1989) suggested the following linear, weighted mathematical representation to explain the model:

$$LA(f) = PV(w1) + PS(w2) + (PB - PC) (w3)$$

Where LA = the likelihood of a person taking preventive action, as in undergoing HIV-testing, for instance is a (f) function of the following variables:

PV = Perceived vulnerability to HIV/Aids

PS = Perceived severity of the consequences associated with being HIV - positive

PB = Perceived benefits from undergoing an HIV-test

PC = Costs associated with knowing the HIV-status, specifically being HIV-positive.

w1, w2 and w3= empirically determined weights which specify the relationship between each component and the criterion, LA.

The model has been specifically chosen for this particular study firstly because it is claimed to predict behaviour in health context and according to this study, it is hoped that the model will predict the circumstances under which individuals decide to undertake/not undertake an HIV-test. Secondly, one of the original reasons for developing the model was to

understand the widespread failure of individuals to accept screening tests for the early detection of asymptomatic disease (as mentioned earlier). Since this study focuses on testing (screening), this seems an appropriate model for predicting HIV-testing since it has also been developed based around the same context.

2.3.1.2 Application of the model to health related problems.

Marteau (1989) cites numerous studies that used the Health Belief Model to promote health behaviours - amongst others being participation in screening programmes for cervical cancer and genetic abnormalities, the uptake of inoculations, giving up smoking, and altering dietary behaviours.

Weinstein, Sandman and Roberts (1991) tested the hypothesis that perceptions of personal susceptibility are important in decisions to test one's home for radioactive radon gas, a study that applied a variable of the Health Belief Model.

Becker et al. (cited in Kegeles & Lund, 1982) examined the ability of health beliefs to distinguish participants from non-participants in a screening program for Tay-Sachs disease. They found that significantly more participants than non-participants felt they were susceptible to being carriers of the Tay-Sachs gene. The association of "perceived severity" and participation was also significant but negative (Janz & Becker, 1984).

Hyman, Baker, Ephraim, Moadel and Philip (1994) assessed some of the Health Belief Model variables, namely, perceived susceptibility, barriers and benefits on their ability to predict mammography utilisation in a prospective study of hospital employees. The study included other variables for investigation in their study. Amongst the Health Belief Model variables investigated, both greater perceived benefits and perceived barriers were associated with use of mammographic screening, while perceived susceptibility was not predictive of utilisation behaviour.

A replication and extension study of the relationship between the Health Belief Model and Preventative Dental Activity was done by Kegeles and Lund (1992). The results of the study did not produce any evidence to support the notion that the Health Belief Model can adequately explain the behaviour of engaging in preventative dental activity.

2.3.1.3 Application of the model to HIV/Aids.

Brunswick and Banaszak-Holl (1996) conducted a study in which the applicability of the major components of the Health Belief Model in explaining HIV avoidance behaviours in a community sample of urban African American men and women was investigated. The findings indicated that: "..., all the Health Belief Model variables were negatively associated with risk avoidance" (p.62).

Another study of more than 300 sexually active Scottish teenagers, which investigated the relation between the various components of the Health Belief Model and the intention to carry and use condoms found that perceived severity of HIV-infection, perceived vulnerability to HIV-infection and perceived effectiveness of condom use was only weakly related to intention to use and carry condoms (Stroebe & Stroebe, 1989).

A study conducted by Falck, Siegal, Wang and Carlson (1995) in which the Health Belief Model variables' ability to predict those "not-in-treatment" Intravenous Drug Users employing safer injection practices was undertaken. In this study, self-efficacy was included as an additional variable. The results indicated that perceived self-efficacy and perceived susceptibility were significantly related to safer injection practices.

2.3.1.4 Evaluation of the model

Becker, (cited in Kegeles & Lund, 1982) asserted that a major advantage of the Health Belief Model is its focus on factors which are more modifiable than personality and

demographic factors. The implication being that manipulation of such factors would be possible, if need be, allowing for flexibility in the utilisation of the model.

Regarding the Health Belief Model variables, Brown, DiClemente and Reynolds (1991) assert that Janz and Becker's 1984 review of all the studies done on the Health Belief Model reveal that a review of 24 correlational studies found that perceived barriers and perceived susceptibility were the components most frequently reported as having an impact on diverse health behaviours. Ten years of research on the Health Belief Model studies led Janz and Becker (1984, p.41) to conclude that: "Overall, the investigations provide very substantial empirical evidence supporting the Health Belief Model dimensions as important contributors to the explanation and prediction of individuals' health related behaviours".

If we look at the predictive value of the Health Belief Model dimensions, we realise that, over time, there has been a change. In studies conducted prior to 1974, examination of the significance - ratio orderings among Health Belief Model dimensions reveal that the highest ratio (91%) is produced by "susceptibility". "Severity" and "Barriers" yield identical ratios (80%). "Benefits" produced the relatively lowest significance ratio (73%). However, only seven of the seventeen pre-1974 studies measured the "barriers" dimension (Janz & Becker, 1984).

In studies which were conducted between 1974 and 1984 the "Barriers" dimension (91%) was most frequently significant, followed in descending order by "benefits" (81%), "susceptibility" (77%) and "severity" (59%). This ordering of the dimensions of the model was found to hold for both prospective and retrospective studies. Apparently a review of 29 investigations of the ratios stated above revealed the above results (Janz & Becker, 1984).

It is also important to note that whilst there has been much research guided by the Health Belief Model, the model has not been without its critics.

According to Marteau (1989), the main criticisms concern the conceptualisation of the model, the operationalisation of its constructs, as well as its predictive power.

Leventhal and Nerenz (cited in Marteau, 1989) reject the Health Belief Model because they

maintain that it is based on the assumption that people react to illness in terms of perceived seriousness and vulnerability. Rather, they suggest that people's knowledge is more concrete, situationally specific and more categorical than probabilistic. Winnet (cited in Marteau, 1989) argues that unless broader environmental influences and constraints upon behaviour are considered, there is a danger that health psychology will become a health psychology of the detached individual without regard to the social, economic and environmental context. Falck et al. (1995) were of the opinion that since the results of their study as well as those of other studies revealed a relatively modest relationship between Health Belief Model variables and the dependent variables studied, the problem was in the way the model's variables are operationalized. Amongst some of Brown et al. (1991) methodological criticisms against the Health Belief Model, operationalization of the constructs so that they can be adequately assessed is a concern. Marteau (cited in Marteau, 1989) purports that many different measures have been used to operationalise the same construct, with little acknowledgement as to issues of reliability and validity. Jette, Cummings, Brock, Phelps, & Zaessens (cited in Brown et al., 1991) also cite poorly demonstrated reliability and validity of measures of various belief dimensions of the model, as another methodological criticism of the Health Belief Model.

Kegeles and Lund (1982) hold the view that most studies on the Health Belief model have been retrospective rather than prospective, with greater support for the model occurring in retrospective studies. Janz and Becker (1984, p.41) argue that: "it is especially encouraging that findings from studies with prospective designs produced significance ratios as good or better than those derived from retrospective surveys". Kegeles and Lund (1982) conducted their research earlier than Janz and Becker (1984) who were looking specifically at the analysis of research findings on the Health Belief Model over a period of time, that is, 1974 - 1984. We can therefore assume that the most recent findings, those of Janz and Becker (1984) should most likely be considered as accurate.

Another criticism lies in the predictability and utility of the model. Emphasizing the predictability and utility of a model based on the association between two variables as statistically significant is not very informative concerning the strength of the relationship

between the variables (Stroebe & Stroebe, 1989). Instead, information relating to "effect size" is essential to evaluate the strength of an association, which would allow for the estimation of the variance in health behaviour brought about by the various components of the model, either separately or jointly (Stroebe & Stroebe, 1989, p.23).

We have seen the Health Belief Model's ability to predict decision-making in other kinds of health related problems. It therefore remains to be established whether the Health Belief Model's predictive power will be useful in the case of motivation for/against HIV-testing. In the next section, the study attempts to explore previous research findings specifically on HIV-testing.

2.3.1.5 The Health Belief Model and HIV-testing.

Most literature on HIV-testing, which uses the Health Belief Model, deals with some dimensions of the Model in isolation and not on all dimensions in combination. Investigations by Beevor and Catalan (1993), Phillips (1993), Meadows, Catalan and Gazzard (1993), Kalichman and Hunter (1993) indicate that perception of being at risk for HIV-infection has been the most researched dimension of the Health Belief Model that led to a decision to undertake the HIV-test. One such study was undertaken by Miller, Hennessy, Wendell, Webber and Schoenbaum (1996). This study attempted to identify sexual behavioural risk factors for HIV-infection, associated with the decision to accept the HIV-test and to subsequently, return for the results. The results indicated that perceived risk of contracting HIV(a Health Belief Model component) was positively associated with HIV-testing.

Phillips and Coates (1995), Meadows et al. (1993), Siegel, Levine, Brooks and Kern (1989), on the other hand, investigated perceived risks and perceived benefits involved in taking the decision to undertake the HIV-test. Wilson, Jaccard, Levinson, Minkoff and Endias (1996) also investigated a component of the Health Belief Model, viz. perceived susceptibility and its influence on condom usage as a function of HIV-testing. In most of the above investigations, the Health Belief Model dimensions explored were found to be useful in determining whether the individual will go for the test or not. Leventhal, Stevens et al. and Marteau et al. (cited in

Meadows et al., 1993) point out that fear of the consequences and the anxiety of a particular disease, as well as the perceived likelihood of being at risk of that particular disease predict the decision to undertake testing for that disease. In this case, it would be the likelihood of undertaking an HIV-test. It should be noted, however, that the above investigations were done separately, without combining the different dimensions in one study.

For the Health Belief Model to be fully investigated, the combination of all of its dimensions need to be explored in a single study. The present study argues that it would be difficult to claim that the investigations cited above were based on the Health Belief Model, since the Health Belief Model encompasses all of its dimensions for it to be valid. Rosenstock (cited in Janz & Becker, 1984, p.2) notes that: "the combined levels of susceptibility and severity provided the energy or the force to act and the perception of benefits (less barriers) provided a preferred path of action".

It is in the light of the above discussion that the present study investigates the impact of the different dimensions of the Health Belief Model separately and in combination, to assess their applicability to HIV-testing. The next section, therefore, outlines the main reasons for the present study.

2.4 Rationale For The Study

It has been pointed out in the review of the literature above, that HIV/Aids is a major threat to the community, not only in South Africa, but all over the world. It has also been stated that since there is no cure for the disease yet, the only way of controlling the epidemic is through modifying behaviours that put individuals at risk of contracting the HI-virus. HIV-testing, therefore becomes one important component of an HIV/Aids campaign. Research has shown that in most instances in which individuals were being tested for HIV, it was either because they were mandated to do so (Falco & Cikins, 1989; Fleming & Martin,

1993; Gunderson, Mayo & Rhame, 1989; Mckerrow, 1994;) or they were compelled by the appearance of ambiguous symptoms and were acting on urges to clarify the ambiguity of the symptoms (Siegel et al., 1989). It becomes clear, therefore, that it was very rare for individuals to decide on their own to opt for the test. In the few studies in which there was an option in favour of the test, this was done under special conditions (Fehrs, 1990; Kegeles, Catania, Thomas, Coates, Pollack & Lo, 1990). Beevor and Catalan (1993, p183) in their study on women's experience of HIV-testing revealed that: "..., in contrast, the majority of seropositives were tested when they became ill and came into contact with the health services". This illustrates the extent to which individuals are willing to risk their lives because of fear of undertaking the test.

It is the purpose of this study, therefore, to investigate why individuals voluntarily decide to undertake/not undertake the HIV-test.

Kalichman and Hunter (1993) maintain that relatively few studies have reported on community assessments of HIV-testing patterns among persons with diverse HIV-risk histories. This relates to the fact that previous research centred around issues related to gay men and not to the heterogeneous community, as a whole. The present study is trying to compensate for this shortcoming by exploring motives for ante-natal mothers' decision to undertake HIV-testing and variables which impact on the decision. This is explored because ante-natal mothers are obviously involved in heterosexual relationships, thereby extending the diversity of HIV-risk histories. In addition, Rosser's (1991) concern regarding the fact that Aids represents a prime example of a disease in which a male-centred approach has placed women at a disadvantage for diagnosis, treatment and care will also be addressed.

In all the review of literature presented above, very few studies were related specifically to HIV - testing. This study would therefore like to add some knowledge on the dimension of HIV-testing.

Kaplan (1989) is concerned about the lack of utilization of theoretical frameworks in the study of HIV/Aids. Phillips and Coates (1995) also believe that future

research needs to focus on developing and validating models of testing behaviour. They also feel that: "... a specific area of focus for future research is the interaction of risk behaviours, risk perceptions, intentions to be tested and a follow through on those intentions" (Phillips & Coates, 1995, p.117). This study attempts to use the Health Belief Model to predict individuals' decisions to undertake the HIV-test as well as to hopefully validate the model in return. This will, to a certain extent, address Kaplan (1989) and Phillips and Coates's (1995) points of references.

The present aim of the study in exploring the dimensions of the Health Belief Model in combination, will hopefully be an attempt to redress the isolation of the dimensions as illustrated by most studies on the investigation of the Health Belief Model.

CHAPTER 3

METHODOLOGY

3.1 Aims of the Study

The aim of this study is to determine what motivates individuals to undertake or not to undertake an HIV-test, through investigation of the applicability of the Health Belief Model. Various dimensions of the Health Belief Model will be explored, individually and in combination, in an attempt to determine their relationship to decision - making in HIV-testing. This study aims at exploring whether there is a significant relationship between the various dimensions of the Health Belief Model and the decision to undertake/ not undertake an HIV-test.

The review of the literature reveals few studies which have attempted to explore the psychological motivations for or against undertaking an HIV-test. Most studies centre around HIV-testing which has been enforced on individuals mainly for insurance purposes, job applications, marriage licenses and blood donations. Some of the other reasons for HIV-testing have already been mentioned in Chapter 2.

Other variables have been added to the model in an attempt to focus on other socially related factors that might possibly influence the decision to undertake or not undertake the HIV-test. These factors include religious denomination as well as the degree of importance religion played in individuals' lives. These variables were included in the study because some literature suggests that religion can have a buffering effect on individuals' behaviour, especially relating to HIV/Aids. For example, if an individual's religion plays a very important role in that individual's life, she will not engage in pre-marital sex, which means the risks of contracting HIV/Aids becomes highly minimal with the result that such an individual might not consider undertaking the HIV-test. Again, if the individual is married and religion is

central to her life, she will not have extra-marital relationships, as such increasing her chances of not contracting HIV/Aids. Marital status was another factor added since this was also regarded as a possible factor in determining whether marital status would affect which individuals engage in which kinds of behaviours, for instance, would married women opt for HIV-testing or would the inverse apply? Knowledge about HIV/Aids was also added to the study. This was informed by the notion that without the basic knowledge of HIV/Aids, it would be difficult for respondents to indicate their perceptions of vulnerability to/seriousness of the disease or be able to weigh the costs and benefits involved in deciding to undertake the HIV-test. Another factor added was the issue of whether the testing site would be important in influencing individuals' decision with regard to undertaking or not undertaking the HIV-test. Different possible places where testing can take place were identified, the assumption being that the most confidential place might result in increased willingness to undertake testing.

3.2 Hypotheses

The present study has generated a general hypothesis, which was broken down into several sub-hypotheses, corresponding to the different dimensions of the Health Belief Model, on which the study is based.

3.2.1 General Hypothesis

Individuals' perceptions of their vulnerability towards HIV/AIDS, their perceptions about the seriousness of HIV/AIDS, as well as the perceived costs and benefits involved in undertaking an HIV-test, all influence their decision to undergo an HIV - test.

As the present study is aimed at determining the applicability of the Health Belief Model in relation to the decision to undertake an HIV - test, the hypotheses which follow are based on the different dimensions of the Health Belief Model.

3.2.1.1 Hypothesis 1

There will be a significant difference between individuals choosing an HIV-test and those not, on each of the following variables separately:-

- (a) Perceived vulnerability to HIV/Aids
- (b) Perceived seriousness of HIV/Aids as a disease
- (c) Reported risks to contracting HIV/Aids.
- (d) Perceived costs of undergoing an HIV-test
- (e) Perceived benefits of undergoing an HIV-test.

3.2.1.2 Hypothesis 2

The above - mentioned variables (a) - (e) in combination, will significantly discriminate between subjects choosing an HIV-test and those not choosing the test.

3.3 **The Sample**

The research was conducted using a group of ante-natal mothers who were attending an ante-natal clinic at a hospital in the Natal Midlands.

The ante-natal clinic was conducted twice a week, on a Monday and on a Friday. The nurses who were running the clinic would normally offer Aids education to all the women attending the clinic and thereafter provide the ante-natal mothers with an opportunity to undertake an HIV-test. It was of interest to note, prior to conducting the research, that out of the women, 80% would opt for the test while 20% would not. The sample was ideal as it provided individuals who were voluntarily deciding to actually undergo/not undergo testing.

Out of all the 120 women who attended the clinic, 75 agreed to participate in the research. This could represent a sample of individuals who are perhaps already worried about their HIV-status and are therefore prepared to find out more about it, or could also be

representing a sample of individuals who are not worried about their HIV status and therefore, have no anxiety about participating in the study, either way, the sample could be considered biased. From the 75 questionnaires received from the participants, 19 were full of incomplete sections, and for the purpose of the study, 56 was then used as the actual sample size.

Tables 3.1, 3.2 and 3.3 below represent some demographic characteristics of the sample used.

Table 3.1:

Marital status of ante-natal mothers

Marital Status:	Frequency	Percentage
Married	31	55.40
Divorced	3	5.40
Living with partner	5	8.90
Single	17	30.40
Total	56	100.00
Missing responses	0	0.00

Table 3.2:

Religious affiliation of ante-natal mothers

Religious affiliation:	Frequency	Percentage
Christian	33	58.9
Hindu	16	28.6
Muslim	5	8.9
Jewish	0	0.0
Other	2	3.6
Total	56	100.0
Missing responses	0	0.0

Table 3.3:

Importance of religion in ante-natal mothers' lives

Religious degree	Frequency	Percentage
Very important	43	78.2
Quite important	7	12.7
Neutral	5	9.1
Total	55	100.0
Missing responses	1	

A large number of respondents (48.2%) did not give their age, but the rest reported ages ranging from 18 to 41, with a mean age of 29,5. Similarly, a large number of respondents did not indicate their home language, but English and Zulu were reported as the main languages used for communication at home.

3.4 Procedure

An informed written consent to conduct the study at the clinic was requested from the hospital Superintendent. A copy of this letter is attached in Appendix C. Permission to carry out the study was thereafter granted verbally, through the clinic sister in charge.

The questionnaires were given to the nurses who conducted the ante - natal clinics, to give out to the respondents. These were usually given out after the Aids-education, since this was the time they had to decide whether they were going for the HIV-test or not. This factor could result in a biased sample that has already been exposed to some Aids knowledge, especially because the study comprises a section on the assessment of Aids knowledge.

This was a completely voluntary study, wherein respondents were to freely decide on whether they would like to participate in the research or not, thereby, making a fully informed decision to take part in the study. There was no attempt at obtaining informed consent from the respondents, since the researcher assumed that by voluntarily agreeing to

participate in the study, the respondents were fully aware of the nature of the issues to be dealt with in the research. This was informed by their having been exposed to Aids Education prior to participating in the research, and also being given information regarding why the study was being conducted. To try and elicit responses and reliability of responses from the respondents, the questionnaire was anonymous and all the respondents had to do was fill in their age, religion, marital status and home language.

Participants were informed that a survey to understand why certain individuals opt for HIV-testing while others do not opt for the test is sought and if they are willing to share in their experiences as they were privileged to be offered the chance to opt/not opt for the test, they should feel free to do so by filling in the questionnaires.

3.5 Instruments

A questionnaire, which was both written in English and Zulu, was devised and divided into different subscales so as to measure the different dimensions of the Health Belief Model. These are included in Appendices A and B, respectively.

The subscales were as follows: (a) Perception of personal vulnerability to HIV/Aids; (b) Personal perception of the seriousness of HIV/Aids; (c) Personal perception of the risk of contracting HIV/Aids; (d) Anticipated negative reactions to undertaking the HIV/Aids test; (e) Anticipated positive reactions to HIV/Aids testing; (f) Negative feelings associated with HIV-testing; (g) Positive feelings associated with HIV-testing.

In addition, questions related to (h) Knowledge about HIV/Aids; (i) Decision to undertake/not undertake the HIV - test; and (j) Place where testing will be done, were asked in an attempt to clarify the issue more fully.

The reliability of the scales used were assessed using the Cronbach Alpha procedure of the software system SAS.

3.5.1 Assessment of the reliability of the different subscales

Table 3.4
Reliability coefficients for the HIV/Aids scales

HIV/Aids Scales	Cronbach Alpha
Vulnerability	-----
Seriousness	0.479
Costs	0.715
Benefits	0.283
Knowledge	0.627
Risk	0(-0.347)

3.5.1.1 Vulnerability

This subscale explored the first dimension of the Health Belief Model, which is perceived vulnerability to contracting HIV/Aids. This was measured by asking questions related to whether individuals perceived a threat of them ever contracting HIV/Aids and whether individuals perceived themselves as the kind of individuals who would contract HIV/Aids.

The Cronbach Alpha for this scale could not be calculated because the scale consists of only two items. For the Cronbach Alpha to be computed, at least three or more items are needed. The two items correlate poorly with each other as well viz. ($r=0.0328$; $p=0.8123$).

3.5.1.2 Seriousness

This subscale explored the second dimension of the Health Belief Model, namely, perception of the seriousness of HIV/Aids. This was measured by asking questions which related to exploring whether individuals regarded Aids as a serious issue of concern, and if so would they compare it to other socially related variables like, housing problems, financial

crisis, violence and health facilities, (to cite an example of the issues named in the questionnaire), in order of importance?

This scale yields a Cronbach Alpha of 0.479. The items in this scale seem to correlate well with each other. The reliability of the scale also seems adequate, and a good prospect for further development and refinement in subsequent research.

3.5.1.3 Risk

This subscale does not directly form part of the Health Belief Model, but it is linked to the vulnerability dimension of the model in the sense that being at high risk to contracting an illness exposes one to be vulnerable to that particular illness.

The subscale was measured through asking questions pertaining to the nature of sexual relationships as well as the number of sexual partners held in the past 12 months. The scale further included questions relating to condom usage, either with a regular partner or /and a casual partner.

The Cronbach Alpha for this scale is - 0.347. Because it is a negative value, it is assumed to be zero, which indicates no reliability in the subscale. Much further refinement of the constructs and questions is needed in further research.

3.5.1.4 Costs

This subscale explored the first part of the third dimension of the Health Belief Model, namely, perceived costs involved in deciding to undertake an HIV-test. These were measured through asking the respondents to indicate their degree of association with the possible anticipated negative reactions to HIV-testing which were provided, as well as the negative feelings anticipated with undertaking an HIV/Aids test (see Appendix A).

This scale yields a Cronbach Alpha of 0.715. This reflects the adequacy of the reliability of the scale. The items in this scale seem to all correlate very well with each other.

3.5.1.5 Benefits

This subscale explored the second part of the third dimension of the Health Belief Model, namely, perceived benefits involved in deciding to undertake an HIV-test. This was measured through asking the respondents to indicate their degree of association with the possible anticipated positive reactions to HIV-testing which were also provided, together with the positive feelings associated with undertaking the test (See Appendix A).

This scale yields a Cronbach Alpha of 0.283. Inspection of the corrected item-total correlation shows item 27 to correlate negatively with the total, thereby reducing the overall reliability ($r = -0.052$) ("I would be able to make decisions about ending my pregnancy if I am found to be HIV - positive" - an answer "strongly agree" would be scored positively on this scale). The negative correlation of item 27 is difficult to explain. While this suggests that reversing the direction of scoring the item would enhance the overall reliability, such a procedure would not make logical sense.

Item 28 seems to correlate highly with the total, thereby increasing the overall reliability, viz item 28 ($r = 0.410$) ("If I was found to be HIV positive, I would start preventing it from spreading to other people - an answer "strongly agree" is scored positively for this scale). This scale consists of only 3 items, of which the third item viz. item 29 gives an overall reliability of ($r = 0.201$) ("I would be less worried about getting Aids if I find out I am not HIV positive"). This high discrepancies between the three different items perhaps explains the poor reliability of this scale and the reason for this discrepancy is difficult to explain.

The costs and benefits scale was developed using self-constructed items which were derived from the literature, in which feelings and reactions towards the HIV/Aids issue in general, were usually outlined. Consultation with other previous HIV/Aids researchers also helped generate adjectives used to elicit the emotional status around the time of undertaking the HIV-test.

Additional variables which were added to the study:

3.5.1.6 Knowledge

This section contained questions aimed at measuring the knowledge base of the respondents regarding HIV/Aids. This included questions about the method of transmission of the HI-virus, as well as finding out whether there is a cure for Aids or not.

This scale yields a Cronbach Alpha of 0.627. This reflects the adequacy of the reliability of the scale.

3.5.1.7 Demographic details

This section contained questions pertaining to the respondents' demographic data. This included characteristics such as age, home language, marital status, religion, and the importance of religion in an individual's life.

3.5.1.8 Place of testing for the HI-Virus

This section was aimed at eliciting whether the kind of place and conditions under which testing is done has an effect on the decision to undergo or not undergo an HIV-test. The different kinds of options explored included a place where nobody knew the respondents or a place where the respondents would not worry about getting test results, as well as a well-known place like a familiar environment - an ante-natal clinic.

3.6 **Experimental Design and Data Analysis**

The major focus of the present study was on the examination of the relationship between knowledge of Aids, perception of personal vulnerability, perception of Aids as a

serious disease, weighing the costs and benefits of undergoing an HIV-test and deciding, based on all these factors, whether to undergo an HIV-test or not. The design to be employed will be mainly correlational.

3.6.1 Descriptive statistics

Descriptive statistics such as frequency tables, minimum and maximum value, means and standard deviations are considered important, as they assist in presenting the results of the study. An inspection of such descriptive statistics assist the researcher in ensuring that missing data and outliers do not affect a variable's relationship with other variables unduly, especially considering the small sample size used in the study.

3.6.2 Inferential statistics

Research hypotheses translate to statistical hypotheses which call for inferential statistics and statistical tests such as t-tests and Chi-square (Kerlinger, 1986). The primary statistic used in this study is the Pearson product moment correlation coefficient. In respect of hypothesis 2, a Discriminant Function Analysis was run.

3.6.3 Level of significance

The statistical computer package SAS (SAS, 1985) is used to compute statistical test statistics and the associated p-values. These p-values give the probability of a test statistic under the assumption that the null-hypothesis is true. The smaller a p-value, the greater the likelihood that the null hypothesis is false and that a significant result should be concluded. In the present study the p-values for each test statistic will be reported and if this p-value is smaller than 0,05, a statistical significant result will be concluded.

It is realised however, that the overall type I error (the probability of incorrectly

concluding a significant result (Hays, 1963, p. 273) of the present study is high because of the large number of statistical tests being performed, but the researcher was not too concerned with this high type I error, as the study is largely of an exploratory nature.

CHAPTER 4

RESULTS

In this chapter, the results of the study are presented. The descriptive statistics for each variable explored in the Health Belief Model will be reported first, followed by the results from the hypotheses tested and ending in reporting all the other related variables included in the study, but which do not form part of the Health Belief Model.

4.1 Descriptive statistics

4.1.1 Means and standard deviations of the different Health Belief Model variables.

Table 4.1

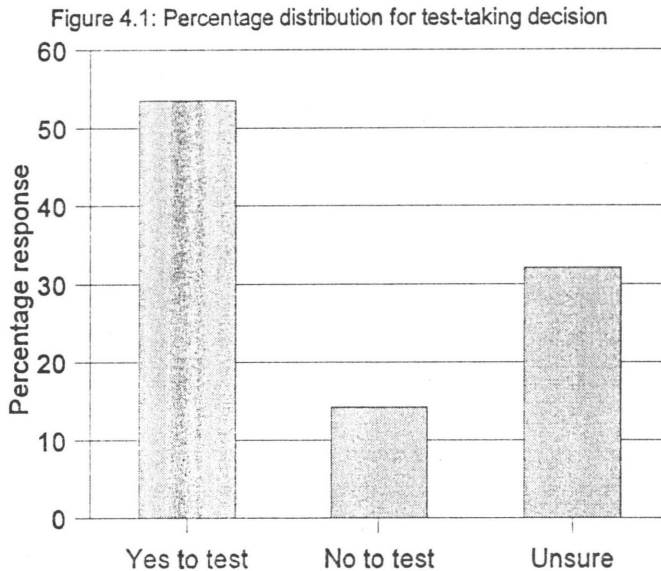
Means and standard deviations of the different Health Belief Model variables.

Variable	Mean	Std.Deviation	Minimum	Maximum	N
Knowledge	0.808	0.296	0	1.000	56
Risk	1.330	0.188	1.000	2.000	55
Vulnerability	2.661	0.793	1.000	4.000	56
Seriousness	2.783	0.335	1.667	3.000	56
Costs	1.936	0.738	1.000	3.667	56
Benefits	2.095	0.767	1.000	3.667	56

Table 4.1 above, presents the mean and standard deviation values for the different variables (scales) as measured for the study. The minimum value for the seriousness scale reflects a fractional value because the scale was made up of three items, with the possibility that a fractional score can be obtained.

4.1.2 The decision to undertake the HIV-test

Figure 4.1 below, presents a bar graph of the percentage distribution of individuals decision to undertake the HIV-test.



From the above figure, only 14.3%(N = 8) of the respondents indicated that they would not go for the HIV-test, if given the opportunity to do so. 32.1% (N = 18) said that they were uncertain about their decision, while about 53.6% (N = 30) said that they would go for an HIV-test, if they were given the opportunity to undertake such a test.

These results reflect small sample sizes for both the groups that decided against undertaking the HIV test (N = 8), and the one unsure about its decision regarding undertaking the test (N = 18). Looking ahead at the Chi-square tests, retaining three categories, with the inclusion of one which only has 8 cases would have produced Chi-square tables with small expected frequencies, leading to the reliability and validity of the Chi-square tests being questioned. For this reason, the two groups were then combined to form one group that might decide not to undergo the HIV-test (herein referred to as the non test-taking group), for purposes of subsequent analyses.

4.1.3 Means and standard deviations of the different HBM variables, in terms of the respondents decision to undertake the HIV/Aids test.

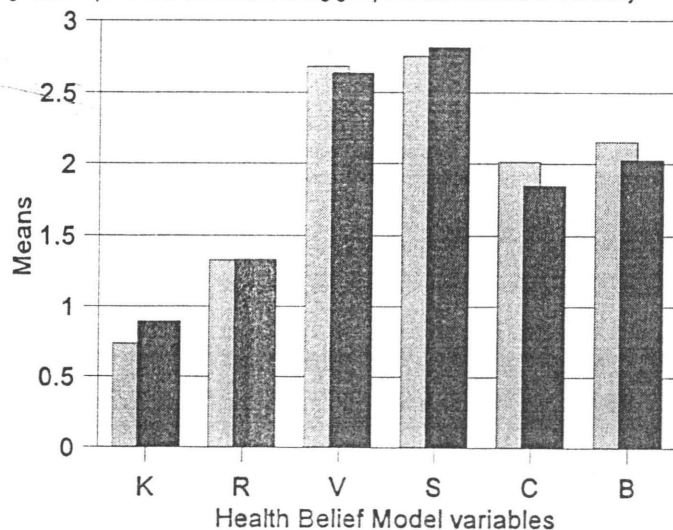
Table 4.2

Means and standard deviations of the different variables as described in table 4.1, in terms of the decision to undertake the HIV - test

Variable	Test-taking group			Non test-taking group		
	N	Mean	Std.dev.	N	Mean	Std.dev.
Knowledge	30	0.736	0.310	26	0.891	0.259
Risk	29	1.328	0.229	26	1.333	0.133
Vulnerability	30	2.683	0.793	26	2.635	0.807
Seriousness	30	2.756	0.360	26	2.814	0.307
Costs	30	2.012	0.737	26	1.848	0.743
Benefits	30	2.156	0.812	26	2.026	0.722

Table 4.2 above, presents the same variables as presented in table 4.1, but distributing them according to the decision to undertake the HIV-test. Figure 4.2 below, presents the bar graph for the results.

Fig.4.2: Comparison of the two test-taking groups on the variables for the study



K = Knowledge

R = Risk


V = Vulnerability

S = Seriousness

C = Costs

B = Benefits

 Test-taking group

 Non test-taking group

From figure 4. 2 above, there does not seem to be an obvious distinction between the group that would opt for undertaking the HIV-test and the group that would not opt for undertaking the HIV-test, on the basis of the Health Belief Model variables..

4.1.5 Frequencies of anticipated feelings upon undertaking an HIV-test.

Table 4.3 below, represents the distribution, in percentages, of the different anticipated feelings associated with undertaking an HIV test for the whole sample.

Table 4.3

Percentage distribution of the anticipated feelings surrounding undertaking an HIV-test

Anticipated feeling	Percentage distribution
Fear	50%
Depression	25%
Sadness	23.2%
Bravery	16.1%
Insecurity	16.1%
Relief	10.7%
Shame	8.9%
Anger	7.1%
Embarrassment	7.1%
Anxiety	7.1%
No concern	5.4%
Guilt	5.4%
Luck	3.6%
Weak	1.8%

From the above table, it is noted that 50% of the individuals identified mostly with the feeling of fear , while 25% of the individuals identified mostly with the feeling of depression and 23.2 % , identified with the feeling of sadness . It is also noted that the least identified with, feelings, were those of weakness and luck .

4.1.6 Percentage of anticipated feelings associated with undertaking an HIV-test, distributed according to the decision to undertake the HIV-test.

Table 4.4 below, presents the percentage distribution of anticipated feelings associated with undertaking an HIV-test.

Table 4.4

Percentage distribution of the anticipated feelings presented in table 4.3, but, according to the decision to undertake the HIV-test.

Anticipated feeling	Test-taking group N = 30	Non-test taking group N = 26
Fear	36.67% (N=11)	65.38% (N=17)
Sadness	16.67% (N=5)	30.77% (N=8)
Guilt	6.67% (N=2)	3.85% (N=1)
Embarrassment	3.57% (N=2)	3.57% (N=2)
Relief	20% (N=6)	0% (N=0)
Anxiety	6.67% (N=2)	7.69% (N=2)
Shame	10% (N=3)	7.69% (N=2)
Luck	6.67% (N=2)	0% (N=0)
Bravery	16.65% (N=5)	15.38% (N=4)
Weak	3.33% (N=1)	0% (N=0)
Insecurity	20% (N=6)	11.54% (N=3)
No concern	0% (N=0)	11.54% (N=3)
Anger	3.33% (N=1)	11.54% (N=3)
Depression	23.33% (N=7)	26.92% (N=7)

From the above results, it seems that 65.38% of the group that opted against undertaking the HIV-test expressed a feeling of fear, as compared to only 20% of the group that opted for the test, and who expressed a feeling of relief. There was a further 11.54% of the group that expressed a feeling of no concern towards the test and also opted against the decision to undertake the test.

A series of correlations to examine the relationship between the different variables as mentioned in Table 4.1, was performed. Table 4.5 below, presents the results of the analysis.

Table 4.5
Correlations between the different Health Belief Model variables

	Knowledge	Vulnerability	Risk	Seriousness	Costs	Benefits
Knowledge	p=0.000 r=1.000	p=0.859 r=-0.024	p=0.005 r=0.374	p=0.044 r=0.270	p=0.720 r=-0.049	p=0.811 r=-0.033
Vulnerability	p=0.859 r=-0.024	p=0.000 r=1.000	p=0.252 r=0.157	p=0.146 r=0.197	p=0.087 r=0.231	p=0.789 r=0.037
Risk	p=0.005 r=0.374	p=0.252 r=0.157	p=0.000 r=1.000	p=0.455 r=0.103	p=0.740 r=0.046	p=0.054 r=0.261
Seriousness	p=0.044 r=0.270	p=0.146 r=0.197	p=0.455 r=0.103	p=0.000 r=1.000	p=0.879 r=-0.021	p=0.777 r=0.039
Costs	p=0.720 r=-0.049	p=0.087 r=0.231	p=0.740 r=0.046	p=0.879 r=-0.021	p=0.000 r=1.000	p=0.203 r=0.173
Benefits	p=0.811 r=-0.033	p=0.789 r=0.037	p=0.054 r=0.261	p=0.777 r=0.039	p=0.203 r=0.173	p=0.000 r=1.000

It is noted from the above table that the largest and most significant correlations lie between knowledge of HIV/Aids and the perception of aids as a serious disease (p = 0.044), reported risk of contracting HIV/Aids and the benefits involved in undertaking the HIV-test (p = 0.054) and between reported risk of contracting HIV/Aids and knowledge of HIV/Aids (p = 0.005).

Some negative correlations are noted between the perception of aids as a serious disease and the costs involved in undertaking an HIV-test ($r = -0.021$), knowledge of HIV/Aids and the costs involved in undertaking the HIV-test ($r = -0.049$), knowledge of HIV/Aids and the benefits involved in undertaking the HIV-test ($r = -0.033$) and between vulnerability to contracting HIV/Aids and knowledge of HIV/Aids ($r = -0.024$). However, the correlations are non-significant.

4.2 Results of the Hypotheses

4.2.1 Hypothesis 1

This hypothesis states that there will be a significant difference between individuals choosing an HIV/Aids test and those not, on each of the following variables, separately:-

- (a) Perceived vulnerability to HIV/Aids
- (b) Perceived seriousness of HIV/Aids as a disease
- (c) Reported risks to contracting HIV/Aids.
- (d) Perceived costs involved in undertaking the HIV/Aids test
- (e) Perceived benefits involved in undertaking the HIV/Aids test.

Table 4.6 below, gives the t-test results of the above comparisons.

Table 4.6

Comparison of individuals on test-taking behaviour with regard to the Health Belief Model variables

Variable	t-value	p-value
Risk	- 0.1119	0.9113
Perceived vulnerability	0.2274	0.8210
Perceived seriousness	- 0.6493	0.5189
Costs	0.8253	0.4128
Benefits	0.6284	0.5324
Knowledge	- 2.0095	0.0495

From the table above, it appears that significant differences between the two groups can only be demonstrated with respect to knowledge of Aids ($p = 0.0495$). It is interesting to note that the group which indicated willingness to undertake the HIV-test, has a lower knowledge level (0.736) as compared to the other group.

From the above results, it is noted that on the Health Belief Model variables, there are no significant differences between the groups which would/would not undertake the HIV-test, on the different variables. A possible interpretation for this outcome will be offered in the discussion section of the next chapter.

This implies that Hypothesis 1 is overall, not supported.

4.2.2 Hypothesis 2

This hypothesis states that the variables (a) - (e) as mentioned in hypothesis 1, in combination, will significantly discriminate between respondents choosing an HIV/Aids test and those not. Table 4.7 below, presents the results of a Discriminant Function Analysis of the different groups, those who opted for the HIV-test and those not, in relation to the different variables as stated previously.

A within 2 groups discriminant analysis yields 1 function. This function derived found no significant difference between the 2 groups (Wilks Lambda = 0.9589 with 51df, $p = 0.7028$) This function accounts for 0.84% of the variance, which does not discriminate significantly between the two groups.

Table 4.7

Classification of individuals in terms of the decision to undertake an HIV-test, as an independent variable, and the variables: vulnerability to HIV/Aids, reported risks to contracting HIV/Aids, seriousness of HIV/Aids, costs and benefits involved in undertaking the HIV/Aids test, as dependant variables, on the basis of a Discriminant Analysis.

Actual Group	Number of cases	Predicted Group Membership	
		1	2
1	30	15 50.00%	15 50.00%
2	26	10 38.46%	16 61.54%

Percentage of grouped cases correctly classified: 55.77%

The table of classification above, shows that 55.77% of cases were correctly allocated on the basis of the discriminant function. Group 2, which is the group which will decide against undertaking the HIV-test, was the most accurately classified group (61.54%), as compared to the other group that will decide to undertake the HIV-test (50%). This may suggest that individuals that decide to undertake the HIV-test are less homogeneous as a group, than the group which is against undertaking the HIV-test.

The Discriminant Function Analysis was repeated with an added independent variable - knowledge. Table 4.8 below, shows the results.

1 function is also yielded in this case. This function found no significant difference between the 2 groups (Wilks Lambda = 0.91097, with 50df, p - 0.4409) when all scales, plus the additional variable were simultaneously compared by entering them into the discriminant analysis. This function accounts for 2.07% of the variance, which does not discriminate significantly between the two groups.

Table 4.8

Classification of individuals in terms of the decision to undertake the HIV-test as described in table 4.7 above, but with knowledge added as another independent variable, on the basis of a Discriminant Function Analysis.

Actual Group	Number of cases	Predicted Group membership	
		1	2
1	30	17 56.67%	13 43.33%
2	26	9 34.62%	17 65.38%

Percent of grouped cases correctly classified: 61.03%

The above results show that 61.03% of cases were correctly allocated on the basis of the discriminant function. Group 2, which is the group which will decide not to undergo the HIV-test, was the most accurately classified (65.33%) group, as compared to the group that will decide to undertake the test (56.67%). This may suggest that group 1 is less of a homogeneous group as compared to group 2.

The Discriminant Function Analysis was again repeated, this time the variables knowledge and degree of religious belief were added as independent variables.

1 function is also yielded in this case. This function found no significant difference between the 2 groups (Wilks Lambda = 0.9004, with 48df, $p = 0.5132$) when all scales plus the two additional variables were simultaneously compared by entering them into the discriminant analysis. This function accounts for 2.003% of the variance, which does not discriminate significantly between the two groups.

Table 4.9

Classification of individuals in terms of their decision to undertake an HIV-test, as described in table 4.8 above, with religious degree as an additional independent variable, on the basis of a Discriminant Function Analysis

Actual Group	No. of cases	Predicted Group Membership	
		1	2
1	20	19 65.52%	10 34.48%
2	26	8 30.77%	18 69.23%

Percentage of grouped cases correctly classified: 67.37%

The table of classification above, shows that 67.37% of cases were correctly allocated on the basis of the discriminant function. Group 2, which is the group that will decide not to undertake the HIV-test, was accurately (69.23%) classified, as compared to the other group (65.52%). This may suggest that group 1 is less homogeneous as a group, as compared to group 2.

The Discriminant Function Analysis was once more repeated, this time the variable - age - was added. Table 4.10 below, presents the results.

The discriminant analysis yields one function. This function derived, found no significant difference between the 2 groups (Wilks Lambda = 0.9004, with 47df, $p = 0.6369$) when all scales were simultaneously compared by entering them into the discriminant analysis. This function accounts for 1.78% of the variance, which does not discriminate significantly between the two groups.

Table 4.10

Classification of individuals in terms of the decision to undertake the HIV-test as the dependant variable and the variables mentioned in table 4.9 with age added as an additional independent variable, on the basis of the discriminant function analysis.

Actual Group	No. of cases	Predicted group membership	
		1	2
1	29	19 65.52%	10 34.48%
2	26	8 30.77%	18 69.23%

Percentage of grouped cases correctly classified: 67.37%

The table of classification above, shows that 67.37% of cases were correctly allocated on the basis of the discriminant function. Group 2, which is the group that will not undertake the HIV-test, was accurately classified (69.23%) as compared to group 1, which is the group that will undertake the HIV-test (65.57%). This may suggest that group 1 is less of a homogeneous group as compared to group 2.

4.2.2.2 Comparison of the two test taking groups on the basis of their anticipated feelings towards the decision to undertake the HIV-test.

Table 4.11 below, presents Chi-square values for the anticipated feelings.

Table 4.11

Comparison of the two groups on the basis of their anticipated feelings towards the decision to undertake the HIV-test.

Anticipated feeling	P-value	Chi-square
Fear	0.032	4.595
Sadness	0.213	1.554
Guilt	0.640	0.219
Embarrassment	0.882	0.022
Relief	0.016	5.824
Anxiety	0.882	0.022
Shame	0.763	0.091
Luck	0.180	1.798
Bravery	0.896	0.017
Weak	0.348	0.882
Insecurity	0.390	0.739
No concern	0.056	3.657
Anger	0.234	1.414
Depression	0.757	0.096

From the above results, it is noted that a significant difference between the two groups exists on the basis of the anticipated feelings of fear ($p=0.032$), relief ($p=0.016$) and no concern ($p=0.056$).

If we look at the results of the chi-squared tests presented by the tables above, as well as the results of the canonical discriminant functions, we realise that no variables - as stated in hypothesis 2 - significantly differentiated individuals who would undertake the HIV-test from those who would not undertake the HIV-test. However, when knowledge was added to the Health Belief Model variables, it significantly discriminated ($p=0.0495$) between the two test-taking groups. Further analysis of the anticipated feelings towards undertaking the HIV-test - a component of the costs and benefits scale of the Health Belief Model - reflected the anticipated feelings of fear, relief and no concern to significantly discriminate between the two test-taking groups.

These results, however, imply that hypothesis 2 is also rejected.

4.2.3 Relationships between the decision to undertake the HIV/Aids test and other variables included in the study, which do not form part of the Health Belief Model.

4.2.3.1 Marital status and the decision to undertake the HIV/Aids test

Table 4.12 below, presents the results of the relationship between the above two variables.

Table 4.12
Relationship between marital status and HIV-testing behaviour

	Test taking group	Non test taking group	Total
Married	56.67% (N = 17)	53.85% (N = 14)	31
Divorced	6.67% (N = 2)	3.85% (N = 1)	3
Living with partner	13.33% (N = 4)	3.85% (N = 1)	5
Single	23.33% (N = 7)	38.46% (N = 10)	17
Total	30	26	56
Chi - square	2.681		
P - value	0.443		

From the above table, of the respondents who indicated that they would opt for the HIV/Aids test, 56.67% are married, as compared to 6.67% who are divorced, and 13.33% who are living with a partner and 23.33% who are single. However, of the group that indicated that they would not opt for the HIV/Aids test, 53.85% are married, as compared to 3.85% who are divorced and another 3.85% who are living with a partner as well as 38.46%

who are single. This table, however, reflects several very small, expected frequencies, viz. divorced (n = 2 and n = 1), living with a partner (n = 4 and n = 1), for both the test and non test-taking groups, respectively. These small frequencies renders the Chi-square results questionable.

An attempt at reducing the size of the table by combining the married with the living with a partner group and the divorced with the single group, on the basis of both groups having fixed relationships and unfixed ones, respectively, was made. This justified the use of a Chi-square test. The results of these are reflected in the table below:-

Table 4.13

Relationship between marital status and HIV-testing behaviour - collapsed groups.

	Test taking group	Non test taking group	Total
Married or living with a partner	58.33% (N = 21)	41.67% (N = 15)	36
Divorced or single	45.00% (N = 9)	55.00% (N = 11)	20
Total	30	26	56
Chi - square	0.919		
P - value	0.338		

These results are, however, also non significant. The married and living with partner and the divorced and single groups will be combined for subsequent analyses involving marital status as a variable.

4.2.3.2 Marital status and the use of condoms with a regular sex partner.

The relationship between the above variables was analysed and table 4.14 below presents the results of the analysis.

Table 4.14

Relationship between marital status and condom usage with a regular partner

	Use of condoms	Non-use of condoms	Total
Married or living with partner	11.11% (N=4)	88.89% (N=32)	36
Divorced or single	31.58% (N=6)	68.42% (N=13)	19
Total	10	45	55
Chi-square	3.502		
P-value	0.061		

From the above results, 88.89% of the respondents who are married or living with a partner do not use condoms when having sex with a regular partner as opposed to 11.11% of the same group who use condoms when having sex with a regular partner. 68.42% of the respondents who are divorced or single do not use condoms when having sex with a regular partner as opposed to 31.58% of the same group who use condoms when having sex with a regular partner. The results of this analysis report an almost significant difference ($p = 0.061$) between married or living with partner and divorced or single respondents in using condoms when having sex with a regular partner. This is also in accordance with how one would expect.

4.2.3.3 Marital status and the use of a condom with a casual partner.

The relationship between the above two variables was analysed and table 4.15 below, presents the results of the analysis

Table 4.15

Relationship between marital status and condom usage with a casual partner

	Use of Condoms	Non use of condoms	Total
Married or living with partner	45.83% (N=11)	54.17% (N=13)	24
Divorced or single	45.45% (N=5)	54.55% (N=6)	9
Total	16	19	35
Chi-square	0.000		
P-value	0.983		

The above results indicate that 45.83% of the married or living with partner respondents use condoms when having sex with a casual partner, as opposed to 54.17% who do not use a condom when having sex with a casual partner. 54.55% of respondents who are divorced or single do not use condoms when having sex with a casual partner as opposed to 45.45% of the same group who use condoms when having sex with a casual partner. The results are not in accordance with how one would expect, because one would expect individuals to use condoms when having sex with a casual partner. There were several respondents who did not indicate their usage of condoms when having sex with a casual partner, that is why the total number of respondents has dropped from (N = 56) to (N = 35). The differences between the two groups are also disappointingly small.

4.2.3.4 Testing site and the decision to undertake the HIV/Aids test

The relationship between the above two variables is represented by the results depicted in the table below.

Table 4.16

Relationship between testing site and the decision to undertake the HIV/Aids test

	Antenatal clinic	Where nobody knows you	Where you will not have to worry about getting results	total
Go for test	40.74% (N=22)	12.96% (N=7)	0.00% (N=0)	53.57% (N=29)
Not go for test	29.63% (N=16)	12.96% (N=7)	3.70% (N=2)	46.30% (N=25)
Total	70.37% (N=38)	25.93% (N=14)	3.70% (N=2)	N=54
Chi-square	2.666			
p-value	0.264			

40.74% of the respondents who indicated their willingness to undertake the HIV/Aids test preferred an antenatal clinic for a testing site, as compared to 12.96% who preferred a place where nobody knew them. 29.63% of the respondents who indicated that they would not opt for undertaking the HIV-test, would prefer an antenatal clinic as a testing site anyway, as compared to 12.96% of the same group, who would prefer a place where nobody knew them and 3.70% who would prefer a place where they would not have to worry about getting their test results. The choice of a testing-site does not seem to be of significance in distinguishing between the two test taking groups.

CHAPTER 5

DISCUSSION

5.1 Introduction

The rate of infection with the HI-virus is growing at an alarming rate throughout the world, including South Africa. In view of the fact that a cure has not yet been identified, or an effective vaccine against the virus launched, changes in behaviour become the best way to curb the spread of infection (Bertrand, Brown, Kin on i, Mansilu & Djunghu, 1992). Tests for identifying HIV-positive individuals are available and one issue becomes - what motivates people to decide undertaking such a test?

Previous research has indicated that not too many individuals voluntarily opt for the test. Either they are forced by the appearance of certain symptoms to undergo testing, or they are compelled - for instance - by an insurance company to be tested for the HI-virus (Beevor & Catalan, 1993; Falco & Cikins, 1989; Mckerrow, 1994).

It has been stated in the chapter on the review of literature that certain models have been developed in health psychology to try and understand and/or even predict why individuals engage in certain kinds of behaviours and not in others. Amongst such models is the Health Belief Model. This model has been used in this study to investigate its predictive powers with regards to the issue of HIV-testing. It was investigated and reviewed in Chapter 2 and the results of the study outlined in Chapter 4.

Firstly, this research study aims at adding the dimension of HIV-testing (which many studies have neglected), to the broad issue of HIV/Aids. Secondly, the study also aims at predicting the individuals' motivations for the decision to voluntarily undertake/not undertake the HIV-test, through the use of the Health Belief Model. Thirdly, the study aims at closing the gap in previous research wherein the different dimensions of the Health Belief Model were not combined in a single study to investigate their combined effect on behaviour.

Lastly, the study tries to use a theoretical framework in explaining HIV/Aids related behaviours, as an attempt to address past deficits in HIV/Aids research which lacked a theoretical base.

The general issues mentioned above, will now be elaborated upon, in the light of the data analyses as reflected in Chapter 4.

5.2 Descriptive Statistics

5.2.1 Mean and standard deviation values for the different Health Belief Model variables

From Table 4.1 in the previous chapter, the mean and standard deviation values for the different Health Belief Model variables were presented. It is evident that most respondents seem to possess sufficient knowledge of HIV/Aids, which renders them competent to realistically assess their risk for contracting HIV/Aids as well as their levels of vulnerability to contracting the disease. With this knowledge, it also becomes possible for respondents to weigh up the various costs and benefits involved in undertaking the HIV-test.

5.2.2 Decision to undertake the HIV-test

From the results of the analysis, it seems as if 54% of the respondents would opt for the decision to undertake the HIV/Aids test. At this stage, it would be premature to comment on the reasons for this, since there isn't enough information yet, to offer a valid and accurate interpretation of the results. However, one would envisage the decision to undertake the HIV/Aids test to be the one mostly opted for, since knowledge of one's HIV-test has implications for the curb in the spread of the disease.

5.2.3 Mean scores for the different Health Belief Model variables for the two groups on the test-taking decision.

The results of this analysis do not illustrate any significant difference between the two test taking groups. Perhaps further analysis of these variables, in combination with other variables included in the study, might offer an in-depth understanding of the results.

5.2.4 Anticipated feelings associated with HIV-testing

The highest feeling that most respondents associated the decision to undertake the HIV-test with, is fear, followed by depression and then sadness.

The results of the analysis of the relationship between these anticipated feelings and the decision to undertake the HIV-test indicates that a feeling of fear tends to be significantly ($p = 0.032$) associated with individuals opting against undertaking the HIV-test. On the other hand, the anticipated feeling of relief, seem to be significantly ($p = 0.016$) associated with individuals undertaking the HIV - test, while the anticipated feeling of having no concern towards the decision to undertake the HIV-test, is significantly ($p = 0.056$) associated with individuals opting for the decision not to undertake the HIV-test. This implies that the decision to undertake the HIV-test is significantly associated with less fear, more relief and less concern.

It has already been illustrated that the respondents perceive HIV/Aids to be a serious disease as well as perceiving themselves to be at risk for contracting the HI-virus. However, it seems as if anticipated feelings of fear and less concern towards the HIV-test, tend to affect individuals into opting against undertaking the HIV-test. On the other hand, an anticipated feeling of relief towards the HIV-test, tends to affect individuals into opting for undertaking the HIV-test. The main motivating factor for the decision to undertake the HIV-test seems to lie in the anticipated feeling associated with undertaking the HIV-test.

5.2.5 Correlations between the Health Belief Model variables.

The correlations between knowledge of HIV/Aids and perceived seriousness of Aids as a disease is significant at the 0.044 level. This implies that the more/less knowledge the individual possesses regarding HIV/Aids, the greater/lesser the chances that they will perceive HIV/Aids as a serious disease, which makes sense. The correlation between reported risk to contracting HIV/Aids and perceived benefits of undertaking the HIV/Aids test is significant at the 0.054 level. The implication for this is that the more/less at risk individuals perceive themselves to be, the greater/lesser their chances of associating the HIV-test with a lot of/less benefits. The correlation between reported risk to contracting HIV/Aids and knowledge of HIV/Aids is significant at the 0.005 level. This implies that the more/less knowledge individuals possess regarding HIV/Aids, the greater/lesser their chances of recognising their risks for contracting HIV/Aids.

The findings seem to indicate sufficient knowledge of HIV/Aids within the respondents, which in turn, equips them with the ability to recognise the seriousness of HIV/Aids as a disease and to assess their level of risk towards contracting the virus/disease.

5.3 Results of the Hypotheses

5.3.1 Hypothesis 1

This hypothesis states that there will be a significant difference between individuals choosing an HIV-test and those not, on each of the following variables, separately:

- (a) Perceived vulnerability to HIV/Aids
- (b) Perceived seriousness of HIV/Aids as a disease
- (c) Reported risks to contracting HIV/AIDS.
- (d) Perceived costs involved in undertaking the HIV/Aids test
- (e) Perceived benefits involved in undertaking the HIV/Aids test.

The results presented in Table 4.6, which presents a comparison of respondents

who would opt for the test and those who would not, indicates no significant difference between the two groups on each of the variables being investigated, except for knowledge of Aids ($p = 0.05$). It is interesting to note that the group which indicated that they would go for the test had a lower HIV/Aids knowledge level (0.74) as compared to the other group. This might imply that knowledge of HIV/Aids instills fear among individuals and thereby results in greater unwillingness to undertake the HIV-test. This is consistent with the previous findings which indicated that respondents who anticipated a feeling of fear associated with undertaking the HIV-test, were less willing to undertake such a test. "Even those exposed to health education defend their lifestyle by denial" (Anthony et al., 1992, p.76), indicating the effect of this disease on individuals and also the extent to which individuals can deal with such a highly emotional issue. This is consistent with Archer's (1989) findings that 44 - 45% of patients did not want to know their HIV status because of psychological defences of avoidance, repression and denial - avoidance of specific information being part of the defence. Therefore, it is possible that denial is being used as a defence mechanism by the group that opted against undertaking the HIV-test. Even though the results of the correlations between reported risk of contracting HIV/Aids and perceived benefits involved in undertaking the HIV-test indicated some significant relationship between the two variables, it seems as if this fact does not have a great enough effect on the individuals to motivate them to undertake the test, despite their fear. It should also be noted that the sample used in the study could be biased, in the sense that it might consist of a group of individuals who are already worried about their HIV/Aids status, and therefore want to find out more about the disease through participating in the study. This might explain their fear and therefore, unwillingness to undertake the HIV-test. Another factor that should be borne in mind when interpreting these results is the poor reliability of the scales used in the study, as already illustrated in Chapter 3. It is important to note that it is always a risk, hoping to get reliable measures out of very short scales, but because of the limitations in testing time, it was hoped that the respondents would be prepared to answer the questions, especially because not many people are keen to answer long questionnaires. The reliability of the scales will further be discussed under limitations of the present study.

5.3.2 Hypothesis 2

According to this hypothesis, perceived vulnerability to contracting HIV/Aids, perceived seriousness of Aids as a disease, perceived costs and benefits involved in undertaking the HIV-test, in combination, will significantly discriminate between individuals choosing to undertake the HIV-test, and those not.

As already stated, this hypothesis is rejected because there was no significant difference between the group that opted for testing and the one that opted against testing on the basis of the Health Belief Model variables.

Although the discriminant function analysis was non-significant, it is noted that within the Health Belief Model variables the perception of HIV/Aids as a serious disease and reported risks to contracting HIV/Aids were the variables which contributed most to the discriminant function analysis. However, once the other variables were added to the equation, the situation changed and knowledge was consistently a prominent variable that undoubtedly attempted to discriminate between the two groups. The results of hypothesis 2 are consistent with the results of hypothesis 1, which give a strong indication that knowledge discriminates significantly between the two groups.

The Health Belief Model variables' lack of discriminatory power between the two groups will be discussed in a subsequent section below, where literature related to the Health Belief Model's predictive power is discussed.

5.4 Relationships between the decision to undertake the HIV-test and other variables included in the study, but which do not form part of the Health Belief Model.

5.4.1 Marital status and the decision to undertake the HIV-test.

The results of this analysis, as reflected in Table 4.12, do not indicate any

significant difference between the group that would opt for testing and the one that would opt against testing, on the basis of their marital status. This is consistent with the results of the other analyses which indicated no significant difference between the two test taking groups. Perhaps the willingness to undertake the HIV-test for the married group, is a function of social desirability.

5.4.2 Marital status and the use of condoms

The results of the analysis on condom usage when having sex with a regular partner and the respondents marital status seem to imply that a high percentage of both married and unmarried respondents do not use condoms when having sex with a regular partner.

Further results of the analysis on condom usage when having sex with a casual partner and the respondents marital status seem to imply that 45.83% of the married respondents use condoms when having sex with a casual partner, while 54.17% of the unmarried respondents do not use condoms when having sex with a casual partner. The above results seem to indicate a group of respondents who are vulnerable to contracting HIV/Aids. Even the married respondents who do not use condoms, perhaps under the impression that they are "safe" because they are married and have only one partner, can only be regarded as safe if their partners are faithful.

The willingness of most respondents to undertake the HIV-test is consistent with the respondents' reported risk of contracting HIV/Aids. This is also consistent with the earlier analysis of the correlation between reported risk of contracting HIV/Aids and the benefits involved in undertaking an HIV/Aids test. These research findings are consistent with previous research on HIV-testing and the Health Belief Model, where perceived risk and perceived benefits were strongly associated with the decision to undertake the HIV-test (Phillips & Coates, 1995; Meadows, Catalan and Gaard, 1993; Siegel, Levine, Brooks & Kern, 1989). However, as already stated, the anticipated feelings of fear and less concern regarding the decision to undertake the HIV-test, seem to discriminate significantly between

individuals who would opt for the decision to undertake the HIV/Aids test and those who would not, in favour of opting against the decision to undertake the HIV/Aids test.

5.4.3 Testing site and the decision to undertake the HIV/Aids test.

The results of the above analysis seem to imply that a high percentage of respondents would be willing to opt for the decision to undertake the HIV/Aids test at an antenatal clinic. These results seem to reflect the context under which respondents filled in their questionnaires (an antenatal clinic) which could have perhaps, largely influenced their responses with regard to this item.

5.5 Conclusions of the Present Study

In this study, an attempt was made to identify variables which can predict HIV-testing behavioural intentions, through the use of the Health Belief Model. From the results as presented above, there was no significant difference between individuals opting for an HIV-test and those not, in relation to perceived vulnerability to contracting HIV/Aids, perceived seriousness of Aids as a disease, reported risks of contracting HIV/Aids and perceived costs and benefits involved in undertaking an HIV-test. From this, it can be concluded that the Health Belief Model failed to predict individuals intentions to undertake/not undertake an HIV-test. This lack of predictability can be attributed to several factors.

Firstly, the analysis of the reliability of the scales used in this study indicate low reliability coefficients thereby affecting the findings of the study. Secondly, the sample used in the study consisted of ante-natal mothers who voluntarily chose to participate in the study. This could represent a sample which considered itself at high risk of contracting HIV/Aids and therefore worried about it to the extent that they would want to deal with it through participating in the study. This can result in a biased sample being used for the study and therefore also resulting in the reliability of the results being questioned. Thirdly, previous research stated that knowledge, alone, is not sufficient to change individual s attitudes or behaviour towards an issue. In a study conducted at the Mount Sinai prenatal clinic on

HIV/Aids education, counselling and testing, it was discovered that the increase in knowledge had very little, if any impact on their patients decisions about testing (Berrier, Preisinger & Mason, 1991). Bandura (1990) (cited in Wulfert & Wan; 1993) supports this notion by mentioning that when sexual risk reduction is analysed from a social-cognitive perspective, knowledge and skills to exercise self-protective behaviours are necessary but not sufficient. Darrow and Pauli and Joseph et al. (cited in Meadows et al., 1993) indicate that past research has shown that the possession of adequate knowledge about HIV does not in itself predict the intention to comply with preventive health recommendations. Another dimension to be included, together with knowledge, is self-efficacy. This might alter the perception of individuals regarding HIV-testing, because it does not make sense to know one's HIV status when one cannot do anything about it but wait for the day of their death. If Aids education includes or stresses the possibility of using some medication for prolonging the life-span of individuals who are HIV-positive or even just providing individuals with information relating to factors that prevents the immune system from easily weakening such as avoidance of stress and healthy eating habits, people might have a different attitude towards testing. Wilson, Jaccard and Minkoff (1996) in their study on beliefs affecting the consistency between women's behavioural intentions and behaviour regarding the HIV-test, found two factors to be significant predictors of test-taking behaviour. One of these factors was the belief by these women, that if testing would be beneficial because identification and treatment would be beneficial, then the likelihood of taking the test would be high. But if they believed that testing would not be beneficial because the virus would be identified at a point that was too late for treatment, then the probability of taking the test would be significantly reduced. Bandura, and Strecher, Bevellis, Becker and Rosenstock (cited in Brunswick & Banasak-Holl, 1996) support these findings by arguing that personal control beliefs are critically linked both to perceiving barriers to undertaking preventive behaviours and to the motivation for initiating and maintaining risk-reduction activities (like undertaking an HIV-test, with the hope of initiating treatment at an early stage).

Fourthly, Joseph et al. (1989) argue, in their study on the exploration of the different dimensions of the Health Belief Model, that the Health Belief Model performs considerably less adequately than had previously been reported, especially when applied to

Aids. They discovered that most importantly, sociodemographic variables contributed as much as some of the important components of the Health Belief Model. Schoub (cited in Lindegger & Wood, 1995) cites examples of such sociodemographic variables as poverty and overcrowding; the economic dependency of women which makes prostitution an inevitable source of income and single sex hostels as well as migratory labour, specifically in the South African context for addressing the Aids crisis adequately. Research on high school students' perceptions of Aids risk revealed that: although personal perception of risk is considered to play a major role in motivating behaviour change and is a central component of explanatory models of health behaviour, there has been little exploration of the origins or antecedents of this particular health belief (Gladiis, Michelo, Walter & Vanghan, 1992, p.307). This seems to illustrate some deficiency in some dimensions of the Health Belief Model.

Stroebe and Stroebe (1989) argue that the additive combination of the variables of the Health Belief Model implies that the influence of each of the variables on health behaviour is not moderated by any of the other factors. For example, the assumption that the threat of contracting HIV/Aids is a function of the sum of (a) perceived susceptibility of contracting HIV/Aids and (b) perceived severity of Aids as a disease, implies that there is a moderate threat as long as one of these two variables is high, even if the other approaches zero. In contrast, intuition would tell us that the perceived threat of contracting Aids would be very low if either of the two factors had a value of zero. There may, for example, be many deadly diseases in the world (high severity) which do not worry us because there is not the slightest chance that we could contract them (low susceptibility); with other diseases, the chance of contracting them might be high, but the consequences might be so minor that we would not really take preventive action (Stroebe & Stroebe, 1989).

The above arguments illustrate firstly, that the Health Belief Model in itself, has not been clearly and adequately explained for it to predict behavioural intentions unequivocally (Stroebe & Stroebe, 1989). Secondly, from the arguments relating to the self-efficacy and locus of control issues, according to Bandura and Strecher, Bevellis, Becher and Rosenstock (cited in Brunswick & Banas ak-Holl, 1996), it becomes evident that the variables explored in this study were insufficient for the study to provide conclusive and reliable data,

However, the study has tried to address Kaplan's (1989), Phillips and Coates' (1995) reservations regarding the lack of utilization of theoretical frameworks in the study of HIV/Aids.

The study has also succeeded in adding the dimension of HIV-testing, which many studies had neglected, to the broad HIV/Aids issue.

An attempt was made at combining the different dimensions of the Health Belief Model in a single study, unlike previously where only one or two of the dimensions would be investigated (Catalan and Gazzard, 1993; Meadows, Siegel, Levine, Brooks and Kern, 1989; Phillips and Coates, 1995;).

The study will assist in comprehending some aspects of individuals' behaviours with regard to the decision to undertake the HIV-test, since it has attempted to provide some of the variables associated with influencing the decision to either undertake or not undertake the HIV-test, even though it could not confirm the hypotheses tested. Exploration of the differences between the two groups on all the variables mentioned, though unable to provide significant differences, allow for some important observations which can, perhaps be utilized for further research. For instance, all the variables that seemed to point in the right direction in terms of reflecting significant differences, though at a very low level, need to be borne in mind when considering possible factors that could be associated with the decision to undertake the HIV-test. These variables include knowledge of HIV/Aids, the anticipated feelings of fear, less concern and relief associated with the decision to undertake the HIV/Aids test, reported risk of contracting HIV/Aids and perceived seriousness of HIV/Aids as a disease. Perhaps this might offer a strong argument for repeating and extending the present study for future research, especially in the light of the poor reliability of most of the scales used in the study.

The conclusion that can be drawn from this study is that if individuals possess sufficient knowledge of HIV/Aids, they are more likely to make informed assessments regarding their perceptions of Aids as a serious disease and their level of risk for contracting the virus/disease. This adequate knowledge, together with an anticipated feeling of fear

towards undertaking the HIV-test, motivates individuals into opting against undertaking the HIV-test. However, if individuals anticipate a feeling of relief towards undertaking the HIV-test, such individuals are more likely to opt for undertaking the HIV-test. Therefore the decision to undertake the HIV-test seems to depend largely on knowledge of HIV/Aids and the type of feelings one has towards the test. As previously mentioned, the results of this study need to be interpreted with caution because of the poor reliability of the scales.

5.6 Limitations of the Present Study

A major limitation of the present study was the inadequate completion of the questionnaires, thereby resulting in most items being left uncompleted. This results in a serious impediment in the relevance of conclusions made. The absence of the researcher at the time the questionnaires were completed because of the confidentiality and trust aspect involved in a study such as this one, may have contributed to this limitation. The study was conducted by ante-natal clinic staff members, with whom the respondents were familiar and felt comfortable working with. The researcher did not want to intrude upon the respondents privacy. Perhaps what the researcher should have done was to gradually introduce herself to the respondents through participating in the HIV/Aids education programmes offered at the ante-natal clinic by the ante-natal clinic team. This could have facilitated her being part of the process of completing the questionnaires and the problem of uncompleted sections could have been avoided.

Secondly, the reliability of the scales used, as indicated by the Cronbach Alpha analysis, which were mostly poor, also poses a problem in terms of the reliability of the responses obtained. This suggests that in future, more reliable Health Belief Model scales should be used. This could be achieved through increasing the number of items which each Health Belief Model variable will comprise, say 15 items per variable. These items would then have to be pretested, with the aim that this will be followed by a process in which all poor items would be pruned. This would then be followed by re-wording all promising, but inadequate items, re-testing them so that each scale, at least, achieves a reliability coefficient of

above 0.80.

Thirdly, the sample size used was very small, thereby rendering it difficult to generalise the findings to other similar populations. The possibility that the sample could have been biased also renders the interpretation and generalisability of the findings questionable, especially because the sample consisted of a specific population, namely, ante-natal mothers. Although the sample was ideal and suitable at the time the study was conducted, perhaps a replicated and extended study would include both males and females, especially from rural populations where poverty and migratory labour is a reality, factors which, according to a study by Lindegger and Wood (1995) complicates the HIV/Aids issue for the South African population and needs to be considered in HIV/Aids researches. However, women remain at high risk for contracting the virus due to their physiological make-up, and their power positions in society. The fact that there is a high risk of perinatally and postnatally transmitting the virus to their children, also continues to render them an ideal sample. Decosas and Pedneault (cited in Strebel, 1996) found that the rate of infection with the HI-virus in sub-Saharan Africa tends to be greater in women than in men. This is confirmed by Doyle's 1993 forecasts of HIV prevalence among all adult females which were about 4% by 1995 and are 12.5% by 2000 and 20.5% by 2005 (Strebel, 1996). The young, especially the adolescent group, needs to also be targeted for sampling since their lifestyle renders them vulnerable to contracting HIV/Aids. Research by Goh, Primavera, Bartalini (1996), Walter, Vaughan, Gladis, Ragin, Kasen and Cohall (1992), Jemmott, Jemmott and Fong (1992) and Rotheram-Borus and Koopman (1991) support this contention.

5.7 Suggestions for Future Research

Future research needs to focus on the HIV/Aids crisis with special reference to the South African situation. Literature indicates some aspects which are related to the HIV/Aids epidemic and which are specific to the South African community - which in turn - complicate the dynamics of the disease in South Africa (Lindegger & Wood, 1995).

Traditional, African culture also needs to be taken into consideration when addressing the

lient to them at that point in time, rather than to reflect on all factors that may have an
t on their decision. Although the present study attempted conducting the study in a
r context that Wilson et al. (1996) advocates, perhaps with a much representative and
sample, the context might provide valuable research findings.

Exploring the HIV/Aids issue on a much wider, contextuali ed scale might
fruitful in providing valuable information that can assist in designing intervention
ies aimed at promoting health-related behaviours. Broome (1989), purports that: By
ling models to encompass health professionals and patients cognitions, as well as the
on, future research using a cognitive perspective is likely to bear more fruit .

Perhaps the greatest challenge facing researchers in the area of HIV/Aids is the
lity of developing new models for understanding or explaining health related
ours. A study that compared 4 competing theories of health protective behaviour,
, The Health Belief Model, The Theory of Reasoned Action, Protection Motivation
and Subjective Expected Utility Theory provides evidence that despite empirical
re on these models, there is still no consensus as to whether certain models of behaviour
e accurate than others, whether certain variables are more influential than others, or
r certain behaviours or situations are understood better than others (Weinstein, 1993).
ggests the importance of a comparison of the models with the hope of identifying
is and weaknesses within each model, a process, which eventually, should lead to the
ction of more accurate models. This can be accomplished through either suggesting a
ent in existing models, or if research so suggests, reject certain models. The argument
above rationale stems from the inability, within these models, to predict the actual
of precautionary behaviour that will occur. Instead, what is predicted is the relative
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APPENDIX A

UNIVERSITY OF NATAL

HIV/Aids RESEARCH

INSTRUCTIONS: DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE. ALL THAT IS REQUIRED IS YOUR RELIGION, AGE, HOME LANGUAGE AND YOUR OPINION.

PLEASE CIRCLE THE LETTER WHICH IS MOST APPLICABLE TO YOU.

AGE:

HOME LANGUAGE:

1. Marital Status:

- a. Married b. Divorced c. Living with partner d. Single

2. What Religious tradition were you brought up in?

- a. Christian b. Hindu c. Muslim d. Jewish e. Other

3. How important is religion in your life?

3. How important is religion in your life?

a. Very important b. Quite important c. Neutral

d. Not important e. No place

4. Do you think a person can catch AIDS from someone who looks healthy but has AIDS?

a. YES b. NO c. NOT SURE

FOR EACH OF THE FOLLOWING QUESTIONS, DECIDE WHETHER IT IS POSSIBLE TO GET AIDS FROM THE SITUATION. PLEASE CIRCLE.

5. Shaking hands with someone with AIDS

a. YES b. NO c. NOT SURE

6. Having sex with someone of the same sex

a. YES b. NO c. NOT SURE

7. Drinking water out of the same glass as someone with AIDS

a. YES b. NO c. NOT SURE

8. Is there a cure for AIDS?

a. YES b. NO c. NOT SURE

9. People with AIDS will always die from it

a. YES b. NO c. NOT SURE

10. I am able to tell if someone has AIDS

- a. YES b. NO c. NOT SURE

PLEASE ANSWER THESE QUESTIONS ABOUT YOURSELF IN RELATION TO AIDS

PLEASE CIRCLE.

11. Do you think that there is any threat of you getting AIDS?

- a. A serious threat b. Some threat c. No threat d. Unsure e. Impossible

12. I am not the sort of person who would get AIDS

- a. TRUE b. FALSE c. NOT SURE

13. AIDS is the worst thing that could happen to me

- a. TRUE b. FALSE c. NOT SURE

14. Do you think AIDS is a serious problem / disease?

- a. YES b. NO c. NOT SURE

15. Which of the following worry you?

- a. Violence
b. Housing
c. Health facilities
d. Finance

e. Other (specify)

16. Does AIDS worry you more than the above issues?

a. YES b. NO c. NOT SURE

17. Please indicate the nature of your present sexual relationship(s)

- a. One regular sexual partner only
- b. More than one regular sexual partner
- c. No regular sexual partner

18. How many different people have you had sex with in the last 12 months?

a. One b. Less than 5 c. 5-10 d. More than 10

19. Do you use condoms when having sex with a regular partner?

a. YES b. NO

20. Do you use condoms when having sex with a casual partner?

a. YES b. NO

HOW MUCH DO YOU AGREE WITH EACH OF THE FOLLOWING? PLEASE CIRCLE.

21. I would be miserable to discover I am HIV positive.

a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly Disagree

22. I would be shocked to find out I am HIV positive
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly Disagree
23. If I am HIV positive, I might start feeling guilty for having engaged in risky behaviour
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly Disagree
24. I would be worried about how my family would react towards me if I was HIV positive
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly Disagree
25. If I was found to be HIV positive, I know I would end up dying and I am afraid of death
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly Disagree
26. I would be worried that my friends might leave me if I am HIV positive
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree
27. I would be able to make decisions about ending my pregnancy if I am found to be HIV positive
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree
28. If I was found to be HIV positive I would start preventing it from spreading to other people
- a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree
29. I would be less worried about getting AIDS if I find out I am not HIV positive

a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree

30. PLEASE CIRCLE THE LETTER (S) THAT WOULD BEST DESCRIBE YOUR FEELING IF YOU WERE TO UNDERGO AN HIV TEST:-

- a. fear
- b. sadness
- c. guilt
- d. embarrassment
- e. relief
- f. anxiety
- g. shame
- h. luck
- i. bravery/confidence
- j. weak
- k. insecurity
- l. no concern
- m. anger
- n. depression

31. Given the opportunity for taking an HIV test, what would be your decision?

- a. To go for the test
- b. Not to go for the test
- c. Not sure

32. If you were to go for an HIV test, where would you prefer to be tested

- a. an antenatal clinic
- b. a place where nobody knew who you are
- c. a place where you would not have to worry about getting test results
- d. other.

THANK YOU

APPENDIX B

University of Natal

Ucwaningo ngeNgculaza

Umyalezo obalulekile: Ungalibhali igama lakho kulenhloombuzo. Okubalulekile ukuthi usitshale kona ngawe inkolo, iminyaka, ulimi olusetshenziswa ekhaya kanye nemibono yakho.

Sicela ufake isiyingi kunobumba okuyiwona ovumelana nawe.

Iminyaka yobudala: _____

Ulimi olokhulunywa ekhaya: _____

1. Isigaba kwezomshado:

a. Ushadile b. Uhlukandisele c. Uhlala nesithandwa d. Awushadile.

2. Uhlobo lwenkolo okhulele ngaphansi kwalo.

a. ubuKrestu b. ubuHindu c. ubuSulumani d. ubuJuda

e. olunye (chaza) _____

3. Ngabe ibaluleke kangakanani inkolo empilweni yakho?

- a. Ibaluleke kakhulu b. Ibalulekile-nje c. Iphakathi nendawo
d. Ayibalulekile e. Ayinandawo kumina.

4. Uyacabanga ukuthi umuntu angayithola ingculaza kumuntu obukeka ephilile kodwa ebe enengculaza?

- a. Yebo b. Cha c. Anginaso isiqiniseko

Kumbuzo ngamunye kwelandelayo (5,6 & 7), nquma ukuthi kungenzeka yini uthole ingculaza kulezizimo. Siza ufake isiyingi.

5. Ngokuxhawulana nomuntu onengculaza.

- a. Yebo b. Cha c. Anginaso isiqiniseko

6. Ngokuya ocansini nomuntu wobulili obufanyo nobakho.

- a. Yebo b. Cha c. Anginaso isiqiniseko

7. Ngokuphuza amanzi ngengilazi eyodwa nomuntu onengculaza.

- a. Yebo b. Cha c. Anginaso isiqiniseko

8. Ngabe likhona ikhambi lokulapha ingculaza?

- a. Yebo b. Cha c. Anginaso isiqiniseko

9. Abantu abanengculaza bayobulawa ingculaza.

- a. Yebo b. Cha c. Anginaso isiqiniseko

10. Ngiyakwazi ukumbona umuntu onengculaza.

- a. Yebo b. Cha c. Anginaso isiqiniseko

Siza uphendule lemibuzo ngoqobo lwakho mayelana nengculaza. Siza ufake isiyingi.

11. Uyacabanga ukuthi ungaba sengoziⁿⁱ yokuthola ingculaza?

- a. Engozini enkulu b. Engozini-nje c. Angikho engozini
d. Angazi e. Ngeke kwenzeka.

12. Angiyona lenhlobo yomuntu engathola ingculaza.

- a. Iqiniso b. Amanga c. Angazi

13. Ingculaza inhlekelele enkulu engenzeka kumina?

- a. Iqiniso b. Amanga c. Angazi

14. Uyacabanga ukuthi ingculaza iyinkinga enkulu noma isifo esikhulu.

- a. Iqiniso b. Amanga c. Angazi

15. Ikuphi kulokhu okulandelayo okukukhathazayo emoyeni wakho.

- a. Udlame
b. Inkinga yendawo yokuhlala
c. Izidingo zempilo
d. Imali
e. Okunye (chaza)

16. Ngabe ingculaza ikukhathaza kakhulu kunalezizinto ezingenhla (kumbuzo 15)?

- a. Iqiniso b. Amanga c. Angazi

17. Siza ucacise uhlobo lobuhlobo onabo nesithandwa / nezithandwa zakho.

- a. Isithandwa esisodwa esijwayelekile b. Izithandwa eziningi ezijwayelekile c.

Awunaso isithandwa esijwayelekile.

18. Ngabe bangaki abantu abahlukene osuke waya nabo ocansini ezinyangeni ezingu-12 ezidlule?

- a. Munye b. Bangaphansi kuka-5 c. 5 - 10 d. Ngaphezulu kuka-10.

19. Ngabe uyayisebenzisa ikhondomu uma uya ocansini nesithandwa sakho esijwayelekile.

- a. Yebo b. Cha.

20. Ngabe uyayisebenzisa ikhondomu uma uya ocansini nezithandwa zakho zesikhashana nje.

- a. Yebo b. Cha.

Ngabe uvumelana kangakanani ngakunye kulokhu okulandelayo. Siza ufake isiyingi.

21. Ngingabalusizi uma ngingathola ukuthi senginegcewane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko⁵
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

22. Ngingashaqeka ukuthola ukuthi senginegciwane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

23. Uma ngingaba negcewane lengculaza, ngingaqala ukuzizwa nginecala lokuthi ngenza izenzo esinobungozi.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

24. Ngingakhathazeka ukuthi umndeniwami ungangibuka kanjani uma senginegcewane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

25. Uma ngingathola ukuthi senginegcewane lengculaza ngingavele ngazi ukuthi ngiyogcina sengifile kanti ngiyakwesaba ukufa.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

26. Ngingakhathazeka emoyeni ukuthi abangani bami kungenzeka bangishiye uma senginegcewane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

27. Ngingakwazi ukuthi ngithathe isinqumo ngingqamule ukukhulelwa uma ngingathola ukuthi senginegcewane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

28. Uma ngingathola ukuthi ngingegcewane lengculaza ngingaqala ukunqanda ukusabala kwegcewane lingayi kwabanye abantu.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

29. Ngingaphelelwa ukukhathazeka kokuthi ngingathola ingculaza, uma ngithola ukuthi anginalo iqciwane lengculaza.

- a. Ngivuma ngokugcwele b. Ngiyavuma c. Anginasiqiniseko
d. Ngiyaphika e. Ngiyaphika ngokugcwele.

30. Siza uzungeze unobumba noma onobumba labo abangachaza kangcono ukuthi ungazizwa unjani uma ungaya ukuohlolwa igazi mayelana nengculaza:

- a. unokwesaba
b. unokudabuka
c. unecala
d. unokuhlazeka
e. unokukhululeka
f. uvalo
g. inlazo
h. inhlanhla
i. unokuzithemba
j. untekenteke
k. ungavikelekile
l. ungenandaba
m. udiniwe
n. unomunyu

31. Uma unikwa ithuba lokuthi uhlole igazi mayelana negcewane lengculaza, kungaba yini isinqumo sakho?

- a. Ungaya ukohlolwa b. Ungeke waya ukuohlolwa c. Angazi

32. Uma ubungaya ukohlolwa igazi mayelana negcewane lengculaza, ikuphi lapho ungancamela ukuhlolwa khona?

- a. Emtholampilo wabakhulelwe
b. Endaweni lapho bengakwazi khona
c. Endaweni lapho ungeke wazikhathaza khona mayelana nemiphumela
d. Kokunye (kuchaze)

APPENDIX C

Psychological Section

Midlands Hospital

P.O. Box 370

PIETERMARITZBURG

3200

18.07.1994

The Superintendent

Northdale Hospital

Private Bag x 9006

PIETERMARITZBURG

3201

Dear Superintendent

Re: REQUEST FOR CONDUCTING RESEARCH AT THE ANTE-NATAL CLINIC.

I hereby apply for permission to conduct a research at the ante-natal clinic.

The research entails investigations into reasons why people choose to undergo/not to undergo an

HIV test. A model in Psychology named the "Health Belief Model" which predicts people's behaviour is used to see if it can also predict people's behaviours with regards to HIV testing. The nature of HIV/AIDS makes it necessary to explore this factor as the disease affects and complicates all aspects of an individual's life - especially interpersonal relationships, which are crucial for an individual's well-being.

Aids/HIV is spreading at an alarming rate in Natal, a research of this nature might help understand people's states of minds when they think about AIDS/HIV, thereby leading to community-centered AIDS education programmes.

Attached, please find a copy of my questionnaire.(Also available in Zulu).

Thank you.

Yours faithfully

Mrs Matshepo Nefale

(Intern Clinical Psychologist)

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