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Assimacopouls, Nadia

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University of the Witwatersrand

School of Human and Community Development

Psychology Master's Research Thesis

AN EXPLORATORY CASE STUDY OF THE HIV AND AIDS WELLNESS CONTEXT OF A SOUTH AFRICAN SME

Written By: Nadia Assimacopoulos
Supervisor: Lynlee Howard-Payne

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ABSTRACT

The current report was an exploratory case study that utilised a mixed methodology to consider the HIV and AIDS wellness context of a South African Small to Medium Enterprise (SME), hereafter called Company A. This study aimed to investigate Company A by observing the Knowledge, Attitudes and Practices (KAP) of employees, as well as their reported behaviours on disclosure of HIV status. HIV and AIDS are critical issues, with South Africa, having the highest rate in the world (UNAIDS, 2010). While various projects are in place to promote prevention and decrease infection rate, infection statistics have plateaued at a high level. The situation in South Africa thus needs to be examined from a different perspective, approaching the epidemic as a case study, rather than through the systematic models and interventions used in the past. A KAP survey and open ended questionnaire were used, as they form the forefront of the assumptions usually used in interventions that look at behaviour change models such as the health belief model (HBM) and social cognitive theory (SCT) and the relationship between knowledge, attitudes and practices and disclosure of HIV status. The research observed that while no clear cut relationships can be found between knowledge, attitudes, practices, and the decision of whether to disclose HIV status, the context and experience of the epidemic is far from straightforward, and needs to be tackled in its entirety. While the intention of policies and interventions may be good, without the requisite investigation of the context, the attempts may not be as successful as they could be.

KEYWORDS

HIV; AIDS; South Africa; Knowledge, Attitudes and Practices; Disclosure of HIV status; Stigmatisation; Company Policies

DECLARATION

Surname: Assimacopoulos

First name/s: Nadia Georgia

Student number: 0312038H

Supervisor: Lynlee Howard-Payne

Title: An exploratory case study of the HIV and AIDS wellness context of a South African SME

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Treatment
ARVs	Antiretroviral
CA	Content Analysis
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HR	Human Resources
KAP	Knowledge, attitudes and practices
SAINT	South African Intrapartum Nevirapine Trial
SANAC	South African National AIDS Council
SCT	Social Cognitive Theory
SME	Small to Medium Enterprise
TAC	Treatment Action Campaign
UNICEF	United Children's Fund
VCT	Voluntary Counselling and Testing
WHO	World Health Organization
WITS	University of the Witwatersrand

NOTES

In writing a research report on Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome, there are several discrepancies in terms of the acronyms and style of writing. These include AIDS versus Aids, as well as HIV/AIDS versus HIV and AIDS.

According to WHO, UNICEF, USAID and UNAIDS, the correct form of writing about the epidemic would be HIV/AIDS (World Health Organisation, 2010; USAID, 2010; UNAIDS, 2010; United Children's Fund, 2010).

The South African Department of Health, however, refers to the epidemic as HIV and AIDS, as does SANAC (South African National AIDS Council, 2010), even though an article written on the SANAC website refers to HIV/AIDS (Sidibé, 2010). It is therefore a challenge to know the correct usage of the terminology, and as a result the author has chosen to use the South Africa Department of Health technique, as it is consistent with the style sheet provided by UNAIDS (See Appendix J) as well as national standards at the current date.

Disclaimer:

All discrepancies in the body of the literature are as a result of quotes which have been recorded verbatim. This includes all spelling errors and variations on the writing of HIV and AIDS.

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CHAPTER ONE – INTRODUCTION

BASIC OVERVIEW

HIV and AIDS are worldwide epidemics, with close to 6 million South Africans being diagnosed as HIV positive (Steinberg, 2008; UNAIDS, 2008). The implication of this is that in a country of 46 million people, more than an eighth of the population has been diagnosed with HIV (AIDS Foundation South Africa, 2010). The epidemic has far reaching effects on the country, which impact South Africa and the population on a social level, a developmental level as well as on an economic level (Motsoaledi, 2010). According to the *2008 National Antenatal Sentinel HIV & Syphilis Prevalence Survey, National Department of Health* (HSRC, 2009), HIV prevalence is the highest in those females between 25 and 29 years old. In males, the peak is in the group aged 30-34 years. This means that the highest incidence of HIV positive South Africans are those persons of working age, who form the backbone of the South African labour force (ILO, 2004).

HIV and AIDS threaten productivity in the workplace for a number of reasons, including: a diversion of resources; increased sick leave due to illnesses and infections that are acquired as a result of an HIV-compromised immune system; weakness and exhaustion as a symptom of HIV and AIDS; as well as untimely death, which leads to hiring and training of new staff. It also adds on expenses as health care costs are increased along with an increase of early retirement and pension funds (AVERT, 2010). Some companies have therefore been looking for a way to minimise their losses and meet the needs of infected workers by investing in workplace treatment programmes (AIDS Foundation South Africa, 2010). There are, however, many other companies that feel overwhelmed, or do not feel they have a responsibility to address the epidemic, with SME's (Small and Medium Enterprises) in particular, being hindered by lack of resources (SABCOHA, 2010).

In 2004, a survey was conducted by the University of Stellenbosch on the impact of HIV and AIDS on South African businesses (including retail, manufacturing and construction). At least 34% of those companies surveyed indicated that HIV had reduced labour productivity, increased absenteeism, and raised the cost of employee benefits (AIDS Foundation South Africa, 2010). A third of these companies reported that HIV and AIDS had already had an impact on profits, while more than 50% expected a negative impact on profitability by 2009. Although the impact of HIV and AIDS on the companies varied, the study concluded that overall the response by business to the pandemic needed to be accelerated. A mere 25% of the sample had a formal HIV and AIDS policy, with less than 20% offering voluntary counselling, testing, or even provided care, support and treatment to infected workers (AIDS Foundation South Africa, 2010).

While various projects are in place in order to promote prevention, increase ARV uptake, increase PMTCT and decrease the spread of HIV and AIDS, South Africa appears to be one of the countries where infection statistics have plateaued at a high level (UNAIDS, 2009b). South Africa has the highest number of people per capita living with AIDS in the world (Anonymous, 2008; UNAIDS, 2009b). The death rate (as a result of AIDS related illnesses), which is already close to 1000 people per day, is a cause of great concern (Steinberg, 2008). On a positive note, medication, in the form of antiretrovirals (ARVs) is more readily available than in the past. ARVs are pharmaceutical drugs that reduce the reproduction rate of HIV in the body. This in turn slows down the virus' ability to damage the immune system, thus allowing HIV positive individuals to remain healthier for longer (Cape Gateway, 2005). The HSRC notes that "South Africa... is currently implementing the largest antiretroviral treatment (ART) programme in the world" (HSRC, 2009, p. viii).

The situation in South Africa among businesses thus needs to be confronted and examined from a different perspective to government policy and procedures. Focus must be given to the epidemic as a case study within particular social contexts, interventions and paradigms that have been used over the last twenty years. Commonly available models in the literature tend to be suitable for high level country policies and procedures but do not assist smaller socio-cultural groups where interventions are being planned or who have to deal with the effects of HIV and AIDS, however there has been less success at this micro-level (SABCOHA, 2010).

AIMS

This research thus aimed to explore the context of HIV and AIDS in South Africa, using a specific company as a case study. Two facets were explored in depth: current levels of knowledge, attitudes and practices, as well as reported behaviours regarding disclosure. The latter is an important consideration in the workplace as disclosure is important if one wants to access wellness resources and assess/ consider human resource considerations (AIDS Foundation South Africa, 2010). Therefore, the HIV and AIDS wellness context of Company A was explored, with the use of a Knowledge, Attitude and Practice (KAP) survey as well as an open-ended questionnaire to explore the employees' levels of knowledge, and the employees' perceptions regarding pertinent issues like disclose of HIV status and stigma (Steinberg, 2008). A further aim of the study was to utilise the traditional instruments of a KAP survey and open ended questionnaire, as they form the forefront of the assumptions usually used in interventions, that utilise the health belief model (HBM) (Naidoo, 2007).

RATIONALE

> *Despite numerous behavior (sic) change interventions that have been evaluated since the beginning of the HIV epidemic more than 25 years ago, there is a notable paucity of data on the direct effect of such interventions on HIV incidence* (McCoy, Kangwende & Padian, 2010, p. 470).

An exploratory case study methodology was chosen as it allowed for an examination of a company that has not previously used formalised, research based methods to inform their wellness context, and specifically their HIV policy. Instead, this small to medium sized company has a comprehensive wellness policy (See Appendix H), and a HIV policy that has not been implemented to the point of other large multinationals such as Daimler Chrysler, BMW, and Anglo American (SABCOHA, 2010; AIDS Foundation South Africa, 2010). The KAP survey used in this study was amended from one such large organisation's study, as it had implemented across several thousand employees in 2008 (Personal Communication, January 2009). For confidentiality reasons the name of the company cannot be disclosed, however for the purpose of the study it shall be called Company B. The 2008 KAP survey from Company B was compared to the literature on a whole, which allowed for the construction of a new instrument (see Appendix B).

In terms of HIV and AIDS wellness policies, those that have been put in place have come about from legal requirements such as "best practice codes", and social pressures (Dickinson & Stevens, 2005). Through these policies, companies have tried to ensure the minimum financial and efficiency losses resulting from employees with HIV or AIDS. However, the majority of these policies require employees to disclose their status in order to receive the health benefits which are offered.

These large multinationals have been providing free antiretroviral treatment (ART) for all employees who require the medication and have disclosed their HIV positive status (AIDS Foundation South Africa, 2010). While one such company (Anglo American) had nearly 2500 employees on treatment by the end of 2004, this model can only be successful when employees are willing to disclose their HIV status and are willing to participate in the treatment. Many companies have followed Anglo American's example and repeated this model, however they have found through their own KAP surveys that almost 50% of HIV positive employees are not utilising the resources made available to them and are rather choosing non-disclosure above disclosure and the treatment offered by employers (AIDS Foundation South Africa, 2010). This issue with non-disclosure of status has been noted by companies, and as a result they have begun to put less of an emphasis on disclosing HIV status. The decision to do this was made as employees are choosing non disclosure about disclosure and access to tratement. Companies have therefore used a variety of models including behaviour change models that aim to promote preventative measures. Although the issue of disclosure versus nondisclosure plays a large role, the reasons for this are varied and unique to the internal cultural context of each company.

The unique and socio-culturally relevant findings of the KAP survey and open ended questionnaire are important considerations, tools and measures of how the epidemic affects a specific workplace. Each workplace (or socio-cultural context) in which an intervention is implemented needs to include such considerations. By ignoring or not investigating these aspects, the reaction to the epidemic will be shallow and ill-conceived (Launiala, 2009). While the intention of policies and interventions may be good, without the requisite investigation of the context the attempts may not be as successful as they could be.

Although KAP surveys provide useful information regarding the basic knowledge, attitudes and practices, it is important to acknowledge the weaknesses of the KAP survey and its use with regards to HIV and AIDS. While KAP surveys are valuable due to

their easy design, quantifiable data and the speed of implementation, there have been criticisms on the narrow focus on knowledge, which KAP surveys assume to be scientific facts. Further issues include theattitudes investigated as they tend to generate socially desirable responses; and the generating of descriptive data. Future KAP surveys should therefore aim to provide explanations of why, rather than what (Launiala, 2009).

CONCLUSION:

The HIV epidemic is a pertinent issue in South Africa, with the impact of it having far reaching consequences. While much research has been done regarding HIV and AIDS (Obermeyer, 2005), there are several assumptions that underlie this research, such as the models used as the basis for prevention schemes (Jurich, Adams & Schulenberg, 1992). Although previous research may have been successful elsewhere in the world, the situation in South Africa needs to be tackled from a different perspective. This study thus focused on a South African SME in order to understand the context of HIV in a workplace, rather than applying a theory that promotes an interpretation. Through the use of a KAP survey and open ended questionnaire, this study examined the experience of HIV and AIDS in the context of a South African SME.

STRUCTURE OF REPORT:

Chapter One provides an introduction to the overall study, placing it within the context of South Africa. It discusses the aims and rationale of the report, explaining why this research report is relevant.

Chapter Two discusses the definitions of HIV and AIDS, providing a context for the study and the research questions. This chapter engages with previous research, critically discussing previous methodologies and findings. It provides previous theoretical

frameworks that have been utilised to understand HIV and AIDS, as well as extra dimensions which are needed to provide a meaningful context.

Chapter Three describes the methodological procedures used in the current study, the research questions, information regarding the participants, as well as the KAP survey and open ended questionnaire utilised for data collection. It further reports the process of data analysis, and how the mixed methodologywas applied. The ethical considerations are explained, following the described procedure.

Chapter Four presents the findings of the research, expressed as the analysis of the data in terms of the quantitative findings, and the qualitative themes. Demonstrated in the data are the findings of the descriptive and inferential statistics. The themes found in the content analysis and the percentages were also examined.

Chapter Five presents the discussion of the data, which includes an overview of the analysis presented in Chapter Four with reference to current and previous literature. The findings are discussed in a holistic manner, along with an argument from the researcher on how they supplement previous research. The implications of the results are considered, along with a summary of how the results answered the research questions. Limitations of the study, as well as recommendations for future research are further discussed in light of the results. The concluding chapter aims to consolidate the research questions with the results from the analysis, thereby providing insight into the wellness context of Company A.

CHAPTER TWO - LITERATURE REVIEW

Introduction

HIV and AIDS have been contentious topics since their discovery in the 1980s (Palloni, 1996). This has resulted in complications for campaigns promoting prevention, as well as workplace policies and the treatments offered. While there is no one reason for this, several influences have promoted HIV and AIDS as a subject of stigma, secrecy and fear (UNAIDS, 2003). This has partly been a result of the initial demography of HIV and AIDS, which offered a public image forged entirely of the negative aspects of the epidemic (Palloni, 1996). The following literature will present the various facets that have worked together over the years in order to create the negative image and sustain it.

> *Imagine a disease that is spread through sex, that has no symptoms, and may take a decade to show itself: a disease which initially seemed to 'prefer' marginalised and oppressed people, homosexuals and blacks, before moving into the whole population. Think of a virus which attacks the very cells that should order its destruction, which multiply, mutate and destroy, until many years later the host will die a cruel and wasting death* (Crewe, 1992, p. 2).

The above quote from Crewe (1992) presents a vivid and frightening image of HIV, offering insight into how it came to be viewed in such a negative light. There is still much fear surrounding the disease, which could be attributed first and foremost to the fact that HIV and AIDS are not clearly differentiated, resulting in HIV and AIDS often being confused as the same thing.

Clinical features of HIV and AIDS

> *Although there is now widespread consensus that HIV 'causes' AIDS, the precise mechanism by which this occurs is not well understood. Nor is it fully understood why some people exposed to the HIV virus do not become infected (Ashford, 2001, p. 7).*

HIV (Human Immunodeficiency Virus) is a retrovirus that damages the immune system by invading the host cell and seizing the host's genetic material, relying on its reproductive mechanisms for a mass production of the virus. This invasion depletes the immune system, leaving the person vulnerable to a variety of infections (Granich & Mermin, 1999). CD 4 cells are the cells in our body, specifically the immune system, that aid the body in fighting diseases (TAC, 2005). HIV attacks the body's CD4 cells, thus making the diminution of CD4 lymphocytes an indication of HIV infection (Valdiserri, 1989).

AIDS (Acquired Immune Deficiency Syndrome) is not the same as HIV, however HIV is the causative agent of AIDS (Palloni, 1996). AIDS is a syndrome acquired as a result of HIV weakening the body's immune system (Sabatier, 1988). As described by the UNAIDS *Style Sheet* (2008b):

> *AIDS is a syndrome that makes one vulnerable to a number of diseases (opportunistic infections) due to a damaged immune system. AIDS itself is NOT a disease (UNAIDS, 2008b, p.2).*

One does not die strictly from AIDS, rather from the secondary disease that the body can no longer fight which is often diagnosed as the cause of death (Sabatier, 1988).

"The human immunodeficiency virus (HIV) infection/acquired immune deficiency syndrome (AIDS) has become the most devastating disease mankind has ever faced" (Sadoh, Fawole, Sadoh, Oladimeji & Sotiloye, 2006, p. 40). Since the beginning of the

epidemic, close to 60 million people have been infected with HIV, and 25 million have died as a result of AIDS-related illnesses.

Southern Africa is the most heavily affected area in the world, with over 65% of reported HIV cases worldwide residing in Sub Saharan Africa (UNAIDS, 2009a), and South Africa in particular being home to the world's largest population of people living with HIV (UNAIDS, 2009a; Steinberg, 2008; Pendry, 1998). Even though the South African adult population has shown an increase in condom usage during "first sexual encounter" from 2002 to 2008, South Africa continues to have a high rate of HIV infection (UNAIDS, 2009a). Regardless of the comprehensive policies and programmes put in place, no significant impact has been seen (UNAIDS, 2008c). Although South Africa has now "bolstered its national response" (UNAIDS, 2008c, p. 1), the initial governmental reaction to the epidemic in the 1990s was one characterised by "denial, ministerial wrangling and the misallocation of resources"(Fouché, 2005, p. 55).

In the last two decades of studying HIV and AIDS, medication that has served to delay the progression of HIV has proven to be a huge triumph (Motsoaledi, 2010). ARVs have been revolutionary as they have been effective in maintaining CD4 cells, allowing HIV positive people to live a long and healthy life without HIV ever developing into AIDS (UNAIDS, 2006). While ARVs have been used around the world for several years, South Africa was slow on the uptake, which has created many myths and misconceptions about ARVs and the treatment of HIV (Dickinson, 2004). In order to gain a clear understanding of the perception of ARVs by the South African population, the position of Thabo Mbeki's government and other leading officials needs to be considered (Steinberg, 2008).

Political, Environment, and Historical Context

The South African government was initially apprehensive about providing treatment for HIV and AIDS (Dickinson, 2004) with former president Thabo Mbeki questioning whether HIV did cause AIDS (Steinberg, 2008), and as a result, ART was delayed until the Constitutional Court ruled in favour of the Treatment Action Campaign (TAC) in a landmark court case in 2002 (Leclerc-Madlala, 2005). In addition to this initial response, the African National Congress (ANC), which make up the majority of the government, have been unsuccessful in reducing the stigma associated with being HIV positive (Ashford, 2001). This has been true up until 2010, where a change in focus was observed. Current president, Jacob Zuma's speech on the 25th April 2010 depicted one of the first movements away from stigma: "After careful consideration, I have decided to share my test results with South Africans. The purpose is to promote openness and to eradicate the silence and stigma that accompanies this epidemic" (Zuma, 2010). Before this, ANC government officials had failed to disclose their status, and resisted any effort to do so (Ashford, 2001). In order to try and understand why the South African government has reacted in this manner, it is necessary to investigate the history of HIV and AIDS, and the context from which it manifested.

HIV has been hard hitting in Africa, more so than the rest of the world. As HIV and AIDS have been shrouded in taboo and secrecy, the initial impression was that HIV was spread by people having too much sex. Former president Thabo Mbeki believed that social and medical science attributed the fact that Africa was heavily affected to the notion that Africans had too much sex. He felt the assumption was that Africans could not control their carnal appetites, even when their libidos were literally killing them, and perceived this 'attack' to be a racist one (Steinberg, 2008)

This 'racist attack' was aggravated by the belief of medical and social science that the way to prevent the spread of HIV was to target populations through behaviour modification models in terms of preventative measures. Mbeki understood this model,

along with AIDS being rife in Africa, to imply that this was a result of the sexual appetite being distinctly insatiable in Africa, and that subduing the epidemic would require taming African men (Steinberg, 2008). Mbeki believed that medical science had been blinded by racism, and believed that ARVs were poisons, rather than treatment. What Mbeki did not consider, however, was the fact that one of the factors that caused AIDS to be so prevalent was the widespread poverty in Africa, and as with many of the epidemics in history, poverty was the cause of its spread (Steinberg, 2008). All these variables led Mbeki to perceive the epidemic through defensive eyes, thus denying the causal link between HIV and AIDS, and claiming that poverty, rather than HIV, caused AIDS.

In June 2001, Mbeki's health minister Manto Tshabalala Msimang repeated Mbeki's belief that poverty, rather than HIV, caused AIDS and would not divulge when the drug Nevirapine (that influenced HIV's ability to infect cells), would be available at test sites. Nevirapine had been tried and tested successfully at the South African Intrapartum Nevirapine Trial (SAINT) at Chris Hani Baragwanath Hospital and HIVNET trials in Uganda. It was also supported by the World Health Organization (WHO) and Joint United Nations Programme on AIDS. Despite the offer from the manufacturer of a free 5-year supply, the government remained apprehensive about the roll out, insisting that the drug was toxic and that Nevirapine would be ineffective due to patients building a resistance to the drug (Jones, 2001). This lack of trust in the medical system and in treatment drugs has had an impact on how the general South African population has understood and perceived AIDS and the treatment of HIV.

ART and disclosure therefore need to be considered in the above context, noting that things do not happen in a vacuum. A theoretical framework that incorporates context is therefore critical in the interpretation of behaviour surrounding treatment, as the environment and situation (albeit from the past) will likely have an impact on South Africans' behaviour and attitudes towards HIV, AIDS, and the disclosure of HIV status.

Along with the government's initial reaction to ARVs, the early attempts at a government intervention were also uninspiring, with the most clearly remembered interventions being the two failures of Sarafina 2 and Virodene. Both of these interventions resulted in public outcries against the government's handling of HIV and AIDS, resulting in the tensions between civil society organisation and government being exposed (Leclerc-Madlala, 2005).

Sarafina 2, which was initiated in 1995, was a drama aimed at youth in an attempt to raise awareness of HIV and AIDS (Leclerc-Madlala, 2005). This project resulted in the government being accused of financial mismanagement (Dickinson, 2004) and was "severely criticised for its less than opaque tendering procedures, its R14 million price tag and its lack of substantive content" (Leclerc-Madlala, 2005, p. 847). Soon after the Sarafina 2 project, Virodene, the 'miracle cure' for AIDS, was being hailed. Although it was supported by many of the top governmental officials (including the then-Minister of Health Nkosasana Dlamini-Zuma and then-Deputy President Mbeki), it was later discovered that rather than being a miracle cure, Virodene was an industrial solvent used often in the dry-cleaning business. Researchers expressed that Virodene was more likely to trigger, rather than reduce the replication of the HIV virus in the body (Leclerc-Madlala, 2005). It was only in 2003 that the state chose to provide ARVs to the nation, after the TAC commenced a series of court actions forcing them to do so (Dickinson, 2004). This initial lack of support, promotion of harmful 'treatment', and then resistance to ARVs, has resulted in a wariness surrounding any treatment offered by the government.

In addition to Mbeki and Nkosasana Dlamini-Zuma's reactions, the South African population has been confronted with several mixed messages surrounding AIDS, such as current President Jacob Zuma's claim that he avoided infection by taking a shower after engaging in sexual intercourse with a woman who was HIV positive (Anonymous, 2008). The history in South Africa, and the myths and misconceptions regarding ARV medication, have resulted in many people not seeing the importance of disclosing their

HIV status because they believe there is no treatment for HIV (Steinberg, 2008). As Marcus explains, there is no reason why people should "own the crisis, when our own government are not owning the problem" (2002, p. 33)

HIV and AIDS thus need to be understood within the South African context, rather than in a vacuum (Marcus, 2002), as the position taken by the officials within government have been confusing and often contrary to what medical science has expressed (Dickinson, 2004). In addition to the governmental response, culture, specifically the traditional African view needs to be considered in order to gain a more comprehensive understanding of HIV and AIDS in South Africa.

Witchcraft and Scapegoating

In conjunction with the historical context of South Africa, culture plays a vital role in the interpretation and experience of HIV and AIDS (Marcus, 2002). While a Western Christian perspective presents AIDS as being "God's punishment for immorality and sins" (Van Dyk, 2001, p. 113), the African view relies on notions of witchcraft, bewitchment and demons.

In the South African context this witchcraft can be understood as "the manipulation by malicious individuals of powers inherent in persons, spiritual entities, and substances to cause harm to others" (Ashford, 2001, p. 5). As Van Dyk (2001) explained, when something bad happens to a traditional African they believe that there is a cause of the situation as well as an agent behind it, and as a result many people will consult both western doctors as well as traditional healers. In conjunction with witchcraft, traditional Africans further believe that their ancestors play a huge role in everyday life, as the mediators between God and the people.

These ancestors can send misfortune and illness to their people if their counsel is not considered, or if taboos are violated. They may also withdraw protection, allowing illness and misfortune to befall their people, rather than sending the illness themselves (Van Dyk, 2001). According to Steinberg (2008), the experience of HIV and witchcraft was an ambivalent one, noting how witchcraft as a cause of HIV and AIDS was both accepted and rejected. He found belief of demons that spread HIV, the *"tikoloshe"* and the *"impundulu"* (Steinberg, 2008, p. 132), while at the same time it was expressed that "there (was) only one way to get HIV" (Steinberg 2008, p. 131). Ashford noted similar findings when considering a death by AIDS, the "view was that the AIDS, if indeed it was AIDS, must have been sent by someone" (2001, p. 1)

As traditional Africans recognise both an immediate and ultimate/personal cause of misfortune or illness, a person diagnosed with HIV would recognise the immediate cause, but not the ultimate/personal cause. The idea that it might be as a result of witchcraft resonates with community members, as it would explain "why some people who are 'at risk' do not contract AIDS and why some people die much more quickly than others" (Van Dyk, 2001, p. 115). The answer that might seem most satisfactory is that someone may have sent AIDS to them through the use of witchcraft (Steinberg, 2008), as Ashford explains:

> *An epidemic such as HIV/AIDS that singles out particular victims within intimate social networks can readily lend plausibility to the suspicion that malicious individuals are pursuing secret evil work. Moreover, as the people so afflicted are not always the least virtuous members of a community, or those deemed most worthy of punishment, it is easy to conclude that they are victims of malice rather than justice (2001, p.8)*

The notion of witchcraft and HIV and AIDS is therefore embedded into African culture, and needs to be acknowledged when investigating the knowledge, attitudes and practices of employees in South Africa. An awareness of witchcraft and the traditional African perception of illness demonstrates the complexity in which the epidemic needs to be considered.

Stigmatisation of HIV and people living with HIV and AIDS:

> *To talk of a "stigma" attached to AIDS in contemporary South Africa without understanding the witchcraft dimensions is, in my view, to risk misunderstanding both the nature of community power relations and the impact of the epidemic... while the disease was first registered in South Africa amongst white homosexuals, nobody identifies it now as a "gay disease" or stigmatizes its victims for their sexual orientation. The silences, and stigma associated with symptoms of the diseases decimating villages and townships in the wake of HIV/AIDS, however, make much more sense if their witchcraft dimensions are taken into account (Ashford, 2001, p. 12).*

Stigma is broad and multidimensional concept that depicts more than an attribute, but rather a social construction (Alonzo & Reynolds, 1995). Although so much has been learnt about the epidemic over the last decade, "AIDS stigma and discrimination continue to influence people living with and affected by HIV" (Greeff, et al., 2008, p. 311). The term stigma comes from Ancient Greek times when it was used to define a tattoo that was branded on ones skin in order to publicly identify one as a wrong doer. This mark identified one as a blemished individual to be avoided (Singhal & Rogers, 2003). Although HIV positive people do not carry a branding, the stigma of being "damaged" and therefore "to be avoided" has become the perception of HIV and AIDS by many. According to Dickinson this is a result of the "(sexual) shame often attached to HIV infection" as well as "the fear of AIDS as an 'incurable' disease" (1994, p. 638).

Stigma is the attitude of being prejudiced against the HIV positive person, as well as behaving in a discriminating manner towards them (Burkholder, Harlow & Washkwich, 1999). For the purpose of this research, stigma will be defined as a "prejudice and discrimination against a set of people who are regarded by others as being 'flawed, incapable, morally degenerate, or undesirable,' and who are treated in a negative way"

(Singhal & Rogers, 2003, p. 248). In terms of HIV and AIDS, stigma presents a societal factor that cannot be ignored. The earlier writings on stigma in terms of HIV suggested difference was the reason for this stigmatisation (Goffman, 1963). Newer literature, however, suggests that stigma is experienced from a broader range of contexts, and includes labelling, discrediting and othering. As a result stigma has become obstacle to be overcome and challenged, as it serves as a barrier against the knowledge that promotes behaviour change, as described by the HBM (Maman, et al. 2009).

Health Belief Model:

The Health Belief Model (HBM) is the foundation of most behaviour models (Gurung, 2006), and states that ones behaviour will change if ones knowledge and attitudes are altered. The HBM asserts that knowledge and attitudes work in conjunction to create change in practices (Rosenstock, Strecher & Becker, 1994). In the case of HIV, these variables can be investigated in the form of a Knowledge, Attitudes and Practices (KAP) survey. Knowledge can be defined as the facts and information associated with HIV and AIDS, attitudes are the beliefs and perceptions surrounding HIV and AIDS, and practices can be defined as the behaviours surrounding HIV and AIDS.

The HBM asserts that in order for a person to change their practices, they must have certain attitudes. A person must believe they are susceptible to the particular health problem, in this case HIV. Secondly they need to have knowledge and an understanding of the severity and seriousness of the condition. People then need to trust that if they change their behaviour, this lifestyle change will be effective in reducing their risk of HIV infection. Once this is done, and they are aware of the cues to action, they need to perceive the benefits of preventive action, as well as the barriers that might prevent them from taking that action (Rosenstock, Strecher & Becker, 1994). The last stage involved in the behavioural change process, includes the self efficacy component of Bandura's Social Cognitive Theory. At this stage the person needs to believe in his/her ability to bring about the behavioural change (Jurich, Adams & Schulenberg, 1992). The

HBM therefore focuses on knowledge as a means of changing behaviour, under the assumption that people will discontinue a risky behaviour should they have the knowledge to do so.

While the HBM presents an interesting perspective on HIV and AIDS practices, it makes the assumption that people will abstain from partaking in potentially dangerous practices should they perceive them to be unsafe. Obermeyer (2005), on the other hand, explained how people might continue to engage in risky behaviours even when preventative measures are widely available, as previous research has found that knowledge of risks does not always translate into protective behaviours. She noted how with practices in HIV and AIDS, individuals do not make the decision only once – instead they have to continually make that protective choice again and again, and this decision may be influenced by many other factors besides health considerations (Obermeyer, 2005).

Helleringer and Kohler (2005) on the other hand comment on another possibility as to why these behaviour change models are not always effective. This includes the perspective that AIDS is not viewed as a threat. Helleringer and Kohler (2005) found in their study that due to the long latency period of HIV and AIDS, it became difficult to associate symptoms and death to the risky behaviours that lead to HIV infection. Many people felt that AIDS was not a threat, as it took so long so affect them, they might die of something else along the way (Helleringer & Kohler, 2005). According to Steinberg (2008), the fact that opportunistic infections were not noted specifically as being AIDS-related resulted in a denial of the effects of being HIV positive. This disregard could lead to the severity of the condition not being fully recognised.

Other limitations regarding the HBM that have been noted include the fact that the HBM has not adequately been studied as a whole. Components of the model have been tested individually, but the model in its entirety has yet to be investigated sufficiently. A

second shortcoming of the theory is that it does not consider environmental and economic factors that might have an impact on social norms, and its influence on people's behaviour (BRU, 2002).

Behaviour change should therefore be considered with respect to social aspects (Obermeyer, 2005). The HBM does not focus on the social and cultural aspects that are significant motivators of behaviour. Taking all of these aspects into account, it is crucial to note that in spite of the knowledge, there exist several cultural and social barriers that serve to inhibit behavioural change (Helleringer & Kohler, 2005). HIV and AIDS have historically been discussed in terms of the technical aspects of prevention programs, rather than social relations. It is thought that this change in mindset from technical to social by the Ugandan government has been one of the reasons that prevention efforts in Uganda have been so successful, as individuals came to be aware of AIDS as an immediate threat (Obermeyer, 2005).

With this in mind, the lack of success of current South African interventions and the reduction of risky behaviour might therefore not be a lack of knowledge of perception of risk, but rather a result of neglecting psychosocial factors in program design (Jurich, Adams & Schulenberg, 1992). Prevention programmes in South Africa have not incorporated traditional African beliefs, and this may be the reason for their failure (Van Dyk, 2001). A study done by Helleringer and Kohler (2005) examined whether social interactions played an active role in maintaining beliefs that sustained high-risk practices, or whether they fostered and encouraged attitudes conducive to change. What was found was that social interactions, if properly nurtured, did have a function of reducing the risk of HIV and AIDS (Helleringer & Kohler, 2005), enforcing the notion that social aspects were and are an important factor in understanding HIV and AIDS. Therefore, although the HBM provides a highly constructive theoretical formulation for derivation of research, alternative paradigms, that include social aspects, are needed (Gochman, 1985). Social Cognitive Theory is a model that incorporates the social nuances in understanding behaviour (Bandura, 1994).

Social Cognitive Theory:

Social Cognitive Theory explains human experience as a "triadic reciprocal relationship between behavior (*sic)*, environmental factors and personal factors" (Kanekar & Sharma, 2009, p.52). Unlike the HBM, SCT is a theory of social learning that includes the principals of observational learning and vicarious reinforcement. This is extremely important to consider when investigating HIV and AIDS in South Africa, as "culture plays a vital role in determining the level of health of the individual, the family and the community" (Airhihenbuwa & DeWitt Webster, 2004, p.4). The HBM cannot be used in isolation as it does not account for culture, thus the SCT was chosen in conjunction with the HBM to aid in the understanding of HIV and AIDS in South Africa.

SCT deals with the cognitive and emotional aspects of behaviour in order to aid in the interpretation of behavioural change (Bandura, 1994). The core assumptions of SCT include the idea that environmental factors, in conjunction with situational factors, work together to have an impact on people's behaviour. The environmental factors described are external factors that include the person's social and physical environments, whereas situational factors can be described as a person's perception of the world. These environmental and situational factors are constantly influencing one another, resulting in behaviour. Behaviour is therefore not simply the result of the environment or the situation, but rather a product of all factors constantly working together and influencing one another (Glanz, Rimer & Lewis, 2002).

The strength of this theory is its focus on observational learning, self efficacy and reciprocal determinism, as well as the fact that it provides an explanation on how people are able to acquire and sustain certain behavioural patterns (Glanz, Rimer & Lewis, 2002). Observation learning can be understood as learning through the observation of someone else, and perceiving the benefits (or reinforcements) that the person received when enacting that behaviour (Bandura, 1994). This works in conjunction with self-efficacy, which is one's belief that one is capable of performing the

particular behaviour. Observation learning and self efficacy thus lead to reciprocal determinism, which can be defined as the dynamic interaction of the person, the behaviour, and the environment in which the behaviour is performed (Glanz, Rimer & Lewis, 2002).

Social Cognitive Theory provides a social understanding of behaviour that considers the knowledge, attitudes and practices of a person, along with the environment in which they exist. Unlike the HBM which relies solely on ones knowledge, SCT considers the reciprocal determinism that allows for various social and external factors to play a role in the understanding of behaviour around the disclosure of one's HIV status, and HIV and AIDS in general. By considering both models in conjunction, it allows for HIV and AIDS to be understood in a contextual basisallowing for the consideration of the various factors influencing that context. This allows for a more thorough interpretation of the epidemic, and the behaviour surrounding it.

Disclosure of HIV Status:

> *The process of disclosure itself might be inherently stressful, even in cases with positive outcomes. Thus, to facilitate better outcomes for HIV-positive individuals and their significant others, one must examine the factors that contribute to the decision to disclose, the process of disclosure, and its impact on HIV-positive individuals and others* (Greefe, et al., 2008, p. 314).

Disclosure can be defined as the act of making ones HIV positive status known. For the purpose of this study, disclosure will refer to the disclosure of HIV status to the company in question.

A qualitative study by Kimberly, Serovich and Greene (1995) that examined reasons for women's disclosure or non-disclosure found several themes. Listening to the language of the participant, the researchers were able to analyse the dynamics surrounding disclosure, drawing conclusions about how disclosure was experienced. It was hypothesised that reasons for having difficulties around disclosure might be twofold. Firstly HIV positive people might be stigmatised, and by disclosing their status they could put themselves at risk. Secondly they were at risk of losing employment, housing, health insurance, friends, or custody of their children.

Further, what was found was that the women presented disbelief at the test results, doubting the truth of their outcome. This suggested that a fear of disclosure was linked to denial. A second theme that appeared was a fear of rejection. Women were unsure as to how other people would react to their status, and expressed a worry that loved ones, as well as lovers, might reject them for being HIV positive (Kimberly, Serovich & Greene, 1995). Thus, the fear of stigmatisation underlay the fear of being labelled HIV positive (Steinberg, 2008).

A possible reason for this disgrace might due to the original theories about AIDS being perceived as racist. Most of the theories to begin with were wildly off mark, with a focus on Africa, away from the major epidemics in Europe and America. These theories seemed to lay the blame for AIDS on Africa, having made assumptions about black culture and sexual behaviour, with no recognition of responsibility. As the *Ghanaian Times* (1987) described, "this is a shameful, vulgar and foolish attempt by white supremacists to push this latest white man's burden onto the doors of the black man" (cited in Sabatier, 1988, p. 87). Thus any information that has been offered to South Africans from the West could be perceived as Western propaganda as well as a lack of understanding about African cultures. It is possible that fears surrounding disclosure still have the associations brought on by these initial theories (Green, 1996).

This fear of discrimination has been evident not only when disclosing to loved ones (Kimberly, Serovich & Greene, 1995), but also when disclosing to employers. However, research has suggested that the corporate sector of the country is vital in the monitoring of HIV and AIDS, and that companies need to support their employees. As expressed by Kofi Annan during a speech in 2001:

> *It is high time we tapped the strengths of the business sector to the full. AIDS affects business. The spread of the pandemic has caused business costs to expand, and markets to shrink. As both the current balance sheet and future indicators show, the business community needs to get involved to protect its bottom line. We need your help—right now. There are already several examples that prove the unparalleled positive impact that corporate action can have in the fight against HIV/AIDS. It is time to turn those examples into concerted and strategic action in the workplace, in advocacy and in building on your corporate strengths* (Annan, 2001, cited in UNAIDS, 2003, p. 2).

South African Business' Response to HIV and AIDS:

Although South African corporates currently employ comprehensive and extensive policies with regards to HIV and employees; employees have still responded with fear and apprehension to treatment policies and campaigns at their workplaces. In order to fully understand this reaction, a history of how corporates initially responded to the epidemic might provide insight into why employees distrust treatment and disclosure to the company. Corporates in South Africa were slow in responding to the AIDS crisis. They sat back and did nothing for more than a decade, and only in 2002 did they first react in two ways. The first of these was the statement from the government in April 2002, expressing how it intended to take the lead in coordinating the country's efforts. The second was the realisation by corporate South Africa that it too needed to respond (Dickinson, 2004).

In order to gain a fuller understanding of corporate South Africa's slow reaction, one should also consider the additional tensions that companies encountered with HIV and AIDS including moral, political, industrial relations and socio-economic tensions. The first responses were mainly from the mining industry, as HIV was being discovered in Malawian migrant workers in 1986. The Chamber of Mines reacted by expressing that employees would be tested and all HIV positive employees would be retrenched. This was met with union resistance, so it was agreed that HIV positive employees who were capable of working could remain in employment. The Chamber, however, would reserve the right to conduct HIV tests pre-employment, and cut back on the recruitment of Malawians (Dickinson, 2004). Steinberg (2008) discusses how to this day there exists a mistrust of the unions, which is a result of the initial response to HIV and AIDS.

Outside of the mining industry, the first large company to respond to AIDS was Eskom. The AIDS policy of Eskom was adopted in 1988, and up until 1993, pre-employment screening for HIV and AIDS was done. By the second half of the 1990s, other major companies such as Illovo Sugar, Daimler Chrysler and Ford Motor Company, began to launch more comprehensive HIV and AIDS policies. However, it was once again the mining industry that first adopted the policy of large-scale ART provision for employees who did not have medical aid. It was Anglo-American that announced drug provision for all of its employees on the 6th August 2002. On the 12th August 2002 De Beers followed suit. A month later, on the 10th September 2002, Old Mutual joined Anglo-American and De Beers. Although this resulted in the Business Day editorial expressing that corporate South Africa was doing something for the epidemic, this was not a representative picture of corporate South Africa as a whole (Dickinson, 2004).

It was further revealed in May 2002 by the South African Business Coalition that most South African companies had not yet assessed the risk of HIV and AIDS in their workforce. The survey of business' response to HIV and AIDS expressed that even less had responded to this risk. What this survey showed was that less than a quarter of companies with more than 500 employees had conducted anonymous HIV testing, and

just over half had done the less intrusive actuarial risk assessment. The survey also revealed limited HIV and AIDS-related support for companies by employer associations (Dickinson, 2004).

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In addition to the initial neglect, HIV and AIDS have been characterised by "persistent 'othering' in which the disease is seen as something only affecting other social groups because of their different (sexual) norms" (Dickinson, 2004, p. 638). The controversies and moral issues present in society are evident within companies, affecting the response of businesses to HIV in various ways. By creating an 'other', a mechanism is provided which allows the threat of AIDS to be ignored and placed aside. Within a company, this was manifested in the delayed response to HIV and AIDS, which was downgraded and passed to more junior employees. This was further evident in the initial responses of companies to HIV and AIDS which were often faced with resistance on 'moral' grounds (Dickinson, 2004). Although many of these tensions have to a certain degree been resolved, they have created a distrust of the HIV policies within companies.

Although the failure of the government to negotiate a national response to HIV and AIDS successfully is significant, "corporate South Africa's slow and fragmented response also raises pertinent questions, given the frequent argument that business principles

provide the most effective way of running organisations and that responses based on profit considerations provide efficient and effective decision making unhindered by prejudice or tradition" (Dickinson, 2004, p. 648). Albeit businesses were not the only ones unsuccessful in responding to the threat of HIV and AIDS, they cannot claim that with recent developments their response was sufficient, and it was certainly not superior to others. Considering the failure of the government to react, the delay in reacting with "second-best defences" (Dickinson, 2004, p. 648) reflects business' lack of ability to be proactive rather than reactive. It further shows a lost opportunity of corporate South Africa to have played a significant role in HIV and AIDS in this country (Dickinson, 2004).

This history has an impact on how employees view their companies, as well as whether they trust the HIV policies provided by them. It is therefore also important to understand the context of these decisions, and what role the government may have played.

Conclusion:

It can therefore be concluded that in the understanding of HIV and AIDS, all the above factors need to be considered in order to provide a holistic view of the epidemic. All knowledge, attitudes and practices regading HIV and AIDS are thus created through social interpretation and the happenings of the South African social society. HIV and AIDS is a complicated disease, imbued with power dynamics, and social representations. While the HBM has provided a positive starting point for previous research, theories surrounding the socio-cultural aspects of HIV in South Africa have proven to be more informative in providing experiences and understandings of HIV and AIDS, as well the the disclosuse of HIV status. As Obermeyer (2005) suggested, new models are needed to further redefine the meaning of knowledge information and communication related to HIV. Theories that better understand risk perceptions and decisions, and link individuals' choices to the relationships and structures that define their worlds

(Obermeyer, 2005) would be more appropriate then in an HIV study in South Africa. The second theory, SCT, also provides a reasonable understanding, however on its own it provides a lesser interpretation of HIV and AIDS in South Africa.

This literature review therefore focused on why it is important to note that HIV and AIDS need to be viewed from a multidimensional paradigm, including the history of South Africa, and the context of traditional beliefs. In line with Jacob Zuma's 2010 speech, it is important to increase knowledge about the epidemic, as complications arise from lack of knowledge, "The stigma arises from fear, and fear from ignorance. Let us fight ignorance. The greatest benefit from the HIV testing campaign should be the education of our people and the promotion of the rights to human dignity and privacy of those living with HIV" (Zuma, 2010).

The focus of this research was thus a contextual understanding of a South African company, through the means of an exploratory case study. In placing the company in the historical context of South Africa, along with the cultural background, this research aimed to explore the current levels of knowledge, attitudes and practices as well as decisions regarding disclosure.

CHAPTER THREE: METHOD

INTRODUCTION

In line with the focus of the research; this chapter discusses the research methods used in order to best answer the research questions. A mixed method was chosen in order to gain understanding on a statistical level as well as to obtain a more in depth understanding of why participants felt the way they did. The research questions; research design; sampling; procedure and instruments will be discussed, providing an overview of how the research was carried out as well as the demographics of the sample.

RESEARCH QUESTIONS

1. What is the HIV and AIDS wellness context of a particular South African SME (Small medium enterprise)?
2. What are the levels of knowledge, attitudes and practices of employees at this South African SME (Small medium enterprise)?
3. What is the relationship between the knowledge, attitudes and practices of these employees and the reporting of whether they would disclose their HIV status?

RESEARCH DESIGN

This cross-sectional exploratory case study adopted a mixed methods approach to ascertain information about the context of this company; the employees' knowledge, attitudes, and practices surrounding HIV and AIDS; and to uncover their opinions surrounding disclosure and non-disclosure within the workplace. It further allowed for an investigation of how knowledge, attitudes and practices might be related to the

employees' decision to disclose (or not disclose) their HIV status to their company. This utilisation of both qualitative and quantitative methodology was chosen based on the research of Singhal and Rogers who believed "future research on HIV/AIDS behavior *(sic)* should combine quantitative and qualitative methods in a triangulation approach, so as to gain the benefits of both" (Singhal & Rogers, 2003, p. 361; Johnson, Onwuegbuzie & Turner, 2007).

SAMPLE AND SAMPLING

Participants were selected through purposive sampling (Whitley, 2002), as a sample from a specific company was needed. The sample consisted of employees from a small to medium company in the Gauteng area. This company, although large in terms of income and part time employees, has a small percentage of full time employees (50 employees, including 3 employers). Participants were therefore chosen only from the group of permanent, full-time employees who work together in the head office. The homogenous group allowed for an interpretation of results by minimising extraneous variables (Polit & Beck, 2008). It also allowed for the existence of an organisational culture to be revealed. An organisational culture can be defined as "a set of norms, beliefs, principles and ways of behaving that together give each organisation a distinctive character" (Willcoxson & Millett, 2000, p. 93).

KAP surveys were administered to 47 employees. Thirty nine employees responded, resulting in a sample consisting of 23 males and 13 females, with 3 participants not specifying their gender. This was a response rate of 83%, which is notably high. The majority of the sample was Black, with most participants speaking Zulu as their first language. The most common age group was 25 to 34 years and 49% of the sample was married/living with a partner.

The open ended questionnaires were administered to the same 47 employees, with 34 responding. This qualitative sample consisted of 18 males, 14 females, and 2 participants who did not specify their gender. The qualitative aspect of the study therefore had a response rate of 72%. As the KAP surveys and open ended questionnaires were anonymous, there was no way to link up the two instruments for participants. Interpretations and analyses were therefore done on the two groups separately. Half the qualitative sample was Black, although 29% noted English as being their first language. The most common age group was 35-44 years and 65% of the sample was married/living with a partner. See table 1 below for more information.

Table 1: Demographic Data for Qualitative and Quantitative Sample. Percentages are in brackets next to the number of participants.

Demographic Data		Quantitative Sample (KAP Survey) N = 39	Qualitative Sample (interview questionnaires) N = 34
Sex	Male	23 (59%)	18 (53%)
	Female	13 (33%)	14 (41%)
Race	Black	23 (59%)	17 (50%)
	White	5 (13%)	8 (23%)
	Coloured	3 (8%)	1 (3%)
	Asian	4 (10%)	1 (3%)
Age	24 or younger	1 (3%)	2 (6%)
	25 – 34 years	18 (46%)	10 (29%)
	35 – 44 years	9 (23%)	15 (44%)
	45 – 54 years	4 (10%)	3 (9%)
	55 or older	2 (5%)	2 (6%)

First Language	English	10 (25.6%)	10 (29%)
	Afrikaans	3 (7.7%)	6 (18%)
	Sotho__	4 (10%)	5 (15%)
	Other	1 (2.6%)	0 (0%)
	Xhosa	1 (2.6%)	1 (3%)
	Tsonga	1 (2.6%)	1 (3%)
	Zulu	13 (33%)	7 (20%)
	Tswana	1 (2.6%)	1 (3%)
	Ndebele	0 (0%)	1 (3%)
	Venda	4 (10.3%)	0 (0%)
	Pedi	1 (2.6%)	0 (0%)
Marital Status	Single	15 (38%)	9 (26%)
	Married/Living Together	19 (49%)	22 (65%)
	Divorced	2 (5%)	1 (3%)
Educational Level	Primary School	2 (5%)	4 (12%)
	High School	14 (36%)	16 (47%)
	Tertiary Education	8 (21%)	6 (16%)

INSTRUMENTS

Quantitative instruments included a KAP survey, which took approximately 20 minutes to complete. Questions included demographic variables such as sex, age, race, marital status, home language and educational level. These demographics allowed the researcher to examine whether they affected the variables of knowledge, attitudes and practices of employees. The other items in the KAP survey focused specifically on the

knowledge, attitudes and practices of the employees regarding HIV and AIDS, as well as views on disclosure. These items included questions about how HIV is transmitted, opinions surrounding HIV and AIDS, whether employees would seek treatment if they were HIV positive, discrimination and fear surrounding HIV testing, why they might be afraid to test, and fears surrounding disclosure (See Appendix B).

According to Vandamme (2009), "A KAP survey is a representative study of a specific population to collect information on what is known, believed and done in relation to a particular topic" (p. 1). KAP surveys can be used for any form of health issue that needs interpretation and understanding. In terms of the current study, a KAP survey was used to directly investigate the knowledge, attitudes and practices of a specific sample within a specific context.

An original KAP survey instrument was obtained by the researcher from Company B, who had used it previously on a large scale in order to investigate the levels of knowledge, attitudes and practices of employees. This instrument (See Appendix B) had been previously amended from an instrument used by Company B in 2004 (personal communication, January 2009) and was subsequently used in 2008. The researcher began the amendment of the instrument through a series of processes that included a literature search as well as piloting the instrument. Much research was done regarding results of KAP surveys and what gaps existed in terms of the data gathered from KAP surveys (BMW South Africa KAP survey Executive Summary) The survey was then created and piloted on various groups of people. Although this was not done on a large group, the editing process took several weeks as the instrument was amended after each collection process. Participants from various economic, educational and cultural backgrounds completed the survey, and amendments were done each time. After the instrument was completed by further groups with no alterations, the instrument was sent to Company A for use.

Employees from Company A, however, provided further insight into the KAP survey itself and which items needed to be rephrased and/or deleted. It is recommended that should this instrument be utilised, the proposed version (See Appendix G) be used and adapted for future use.

The qualitative data was collected through open ended questionnaires in order to access a larger sample within the time constraints of the research project. Although the most common form of collecting data regarding issues of personal perceptions about HIV is to use one-on-one interviews (Welman & Kruger, 2001), open ended questionnaires allowed for a larger sample, as well as a level of anonymity as the participants were under no obligation to provide their names and/or details. It also provided the participants time to think about their answers which allowed for more insightful response to be offered.

An open-ended questionnaire (See Appendix C) was developed by the researcher based on the results of the KAP survey and on findings in the literature. The open ended questionnaire asked the participants about their beliefs and perceptions regarding HIV and status disclosure. This was done in a written format as it was unlikely that the participants would know the exact reasons for their fears and perceptions off hand, whereas this approach allowed for participants to ponder their answers in a less directive method. Demographic questions were also asked in order to serve as a comparison and validity check to the quantitative data.

The KAP survey was not tested for reliability and validity with regards to a Cronbach alpha, however the piloting of the instrument served as a validity check. As the open ended questionnaire was a qualitative instrument, it could not be checked for reliability and validity, however, post hoc results suggest the questions were leading and should be amended if used in the future.

PROCEDURE

Before the administering of the KAP survey, a meeting was held with the Human Resources (HR) manager and the Managing Director (MD) to ensure they were aware of the ethics surrounding the study and what was required of employees. The KAP survey was then delivered to all full time employees, along with an information letter explaining the confidentiality regarding the survey, what was required from participants, as well as why this research is important (Appendix A). Surveys were then administered by the HR manager along with the MD, who had been given a detailed letter explaining the process, should they forget any details. This letter reiterated to all employees that the study was being done by an external researcher, and that participation or non participation in this study would not affect their jobs in any way. It was also emphasised that the collected surveys would remain confidential and anonymous, as only the external researcher would have access to these results. This survey was made available to the full time employees after a staff meeting in which all company members were present, on a Friday morning. The method of distribution was suggested by the company and tailored to suit their requirements, as described below.

The surveys were delivered to the employees in individual envelopes, who were asked to return the completed KAP surveys in the same envelope, which they were to seal. Although surveys were given to all employees, it was made clear that this survey was voluntary, and there was no obligation to complete it. Boxes with instructions were placed around the office in which participants were asked to place the completed instrument in the sealed envelope. As per the company's request, employees were given the weekend to complete the KAP survey. This was to ensure that no one felt pressurised to complete it in the presence of other employees, and allowed for those who did not want to participate in the survey to remain anonymous. After the weekend participants were reminded that they had one day to complete the survey before they were to be collected. The following day (Tuesday) the boxes were removed from the office and collected by the researcher. It was noted, however, that not all surveys were returned in the envelope provided. Of the 47 surveys administered, 39 were received

back from the employees. This is an 83% response rate which exceptionally high for any study.

After an analysis of the quantitative data, a qualitative instrument was developed. In order to gather a sample for the qualitative aspect of this research, an email was sent out by the MD of the company with the open ended questionnaire attached. This email informed the employees about the process on this qualitative component, as well as why it was important in conjunction with the quantitative data. In order to ensure the recipients were unaware of who the email was sent to, all email addresses were sent as Blind Carbon Copies (BCCs), which enables one to send an email to multiple addresses without those being visible to the recipients. Participants were given one week to complete the qualitative aspect, and asked to please email/fax their responses to the researcher, who provided all contact details should any questions arise. After 3 days, an email was sent out to all employees reminding them about the open ended questionnaire. Due to concerns about anonymity from the employees, the HR manager provided boxes for the employees, should they prefer to return the questionnaire in this manner. The email was sent out to 47 employees, three questionnaires were returned over email, one was faxed through to the number provided, and 30 questionnaires were returned in the box at head office, resulting in a 72% response rate.

Once all open ended questionnaires were returned, participants were thanked in an email, and informed that they may have access to the final findings of the research, in the form of a one page summary that can be obtained from the researcher once the research has been submitted and accepted for academic publication. The company was informed that the findings of the research would also be made available to employers in the form of an executive summary, as well as in a presentation done by the researcher.

DATA ANALYSIS

The data was analysed both quantitatively and qualitatively, resulting in a mixed methods design (Farmer & Knapp, 2008). The quantitative approach allowed for the gathering of statistical information about the demographics of the sample as well as the knowledge, attitudes and practices of employees by looking at a KAP survey. The knowledge items were scored according to whether they were correct or incorrect. Individual items were scored, and participants were awarded a total score out of 38. Correct responses were awarded a 1, whereas incorrect resulted in a 0. These scores were then added up and a final score out of a possible 38 was provided. This was done for each individual, as well as for each item. In terms of attitudes items were scored in terms of high levels of stigma and low levels of stigma. The relevant items were reverse scored and a high score suggested low levels of stigma whereas a low score suggested high levels of stigma and discrimination. In terms of practices, items were scored in terms of what is considered "high risk behaviour" and "safe practices". This meant that the higher the score achieved by the participants they more "safe" their practices are considered to be.

Scoring was done according to each item as well as each participant. This ensured that each participant could be studied as an individual, and that items could be inspected on their own. This analysis served as a verification method to confirm validity and realibity of the KAP survey.

The qualitative approach on the other hand was used primarily to gain an understanding of the subjective perceptions of employees regarding HIV and AIDS as well as disclosure of their status to their company. Participants were able to reflect on how they viewed issues surrounding HIV and disclosure by discussing their own personal perspectives (Berg, 2001). The qualitative data was given direction from the KAP survey results, which pinpointed which knowledge, attitudes and practices might be related to the issue of disclosure. These open ended questionnaires thus allowed for

the subjective interpretation of these knowledge, attitudes and practices, offering insight into how disclosure of HIV and AIDS might be understood and experienced by employees.

The mixed method approach was chosen in order to best answer the research questions (Hanson, et al., 2005).

> *Mixed methods is more than mere methods, it also consists of quantitative and qualitative research. This means that mixed methods incorporates paradigms and philosophical assumptions, theoretical perspectives, as well as research questions and interpretations. In short, mixed methods encompasses the totality of all phases of research, and not just the methods (Christ, 2009, p. 292)*

Although purists believe that quantitative and qualitative methods are contrasting ideas that cannot work together, there exists a dialectical perspective that respects the individual methods and maintains their integrity, even when combined in one study (Morell & Tan, 2009). The pragmatist approach was chosen for this study, as it allowed for "the research question to dictate which methods are most appropriate" (Morell & Tan, 2009, p. 245), resulting in both qualitative and quantitative data being collected and analysed.

The KAP survey was broken down into the various components, including: knowledge; attitudes; practices; disclosure; demographics, and general experience. Before the analyses began, the scales of measure for each item on the survey were examined in order to ascertain whether the appropriate parametric tests could be run, based on which assumptions were met (Whitley, 2002). As the data was nominal, non parametric tests were chosen for this study. Scores were done for all sections of the KAP survey, and descriptive statistics were calculated for each individual item and each individual participant.

> *Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data* (Trochim, 2006, p. 1).

These summary statistics included frequency distributions, central tendencies (mean, median and mode) as well as standard deviations (Trochim, 2006). Data was bundled, and knowledge was analysed according to correct or incorrect answers. A total score of 38 was possible. Attitudes and practices were individually examined based on the responses provided. The variables considered were knowledge, attitude, practices and the decision of whether or not to disclose HIV status. The decision was considered the independent variable, while the knowledge, attitudes and practices were categorised as the dependent variables. Demographic variables were also considered to be dependent variables.

The data were then classified into two groups and chi-square test of association was run on these, looking at the outcome of the decision to disclose versus not to disclose. This chi square test was run separately on knowledge, on attitudes and on practices. A Kruskal-Wallis was calculated for disclosure, looking at the KAP survey variables. Multiple regression and factor analysis were not considered due to sample size and item number.

The open ended questionnaires were analysed using a Content Analysis (CA), as it represents a flexible approach that allows movement and development of the data (Braun & Clarke, 2006) and summarises all details in a message set (Neuendorf, 2002). This allowed for an interpretative paradigm to aid understanding of how these employees perceived disclosure and attitudes towards HIV and AIDS. Although a wide range of methods and analytical techniques have been labelled CA, (Duriau, Reger & Pfarrer, 2007), for the purpose of this study the definition of content analysis will be that described by Shapiro and Markoff (1997, p. 14) as cited by Duriau, Reger & Pfarrer,

"any methodological measurement applied to text (or other symbolic materials) for social science purposes" (2007, p. 6).

CA is an unobtrusive, methodical, replicable practice for condensing many words into fewer content categories based on specific rules of coding (Krippendorff, 2004). Although methodical, using systematic coding of themes and patterns, CA also allows for a subjective interpretation of what the knowledge, attitudes and practices surrounding the disclosure of HIV and AIDS might be (Hsieh & Shannon, 2005). "Content analysis is context sensitive and therefore allows the researcher to process as data texts that are significant, meaningful, informative, and even representational to others" (Krippendorff, 2004, p. 42). CA involves extracting themes or concepts from a text in order to establish meanings regarding a particular topic (Pool, 1959), "which can potentially provide a rich and detailed, yet complex, account of data" (Braun & Clarke, 2006, p. 78). It therefore allows an exploration of the common and divergent themes around disclosure that emerge from the sample with regards to fear. Krippendorff (2004) gives an overview of CA where he explains how it allows the researcher to sift through a substantial amount of data in an organized way. It also allows one to extract the main themes and focuses of the data. Inferences can then be made from these extractions, which allow one to make scientific conclusions.

> *Central to the value of content analysis as a research methodology is the recognition of the importance of language in human cognition. In addition, content analysis assumes that groups of words reveal underlying themes, and that, for instance, co-occurrences of keywords can be interpreted as reflecting association between the underlying concepts (Duriau, Reger & Pfarrer, 2007, p. 6)*

The responses from the open ended questionnaire were captured into Microsoft Excel and coded into the various themes. These themes emerged from the data itself and were categorised accordingly and represented as numerical variables (Hopkins & King, 2010). One way frequencies were then run on the themes, presenting a numerical representation with percentages of opinions regarding HIV and AIDS, and disclosure.

Demographic data was further analysed using descriptive and summary statistics (including frequencies, central tendencies and standard deviations). Qualitative answers that could be separated into dichotomous responses and reflection were also split. Yes/No responses were investigated by looking at percentages, while themes were analysed separately.

ETHICAL CONSIDERATIONS

Participants were informed that participation in this study was entirely voluntary and they had a right to withdraw from the study at any point, or refuse to answer any questions with no negative consequences. The participants were also informed that they would not be directly harmed or benefited in any way by choosing to participate or not participate in this study. Although it is not expected that these subjects were sensitive, they were given telephone numbers for LoveLife, Lifeline and Wits Crisis Centre should they require any counselling after the study.

Participants were given information about the study prior to the data collection process. This was done in the form of an information sheet along with the distribution of the KAP survey to all employees. All surveys were placed within an A4 envelope, along with the participant information sheet. The information sheet included the aims of the study, the requirements expected from participants, information on feedback as well as information about access to the data after the study is completed (see Appendix A).

The participants for the KAP survey were all volunteers, and not offered any incentive to participate in the study. They were informed that although the surveys were anonymous, the company and participants would have access to the results, but only in a generalised manner and not as individual results. They were told that by choosing to complete the KAP survey they consented to participate in the study.

The participants for the open ended questionnaire were also volunteers, and not offered any incentive to participate in the study. They were informed about the qualitative aspect of the study through an email sent by the MD and head of HR, as well as the researcher. An information sheet (see Appendix D) was sent along with the questionnaires in the email. Open ended questionnaires further had a clause on the sheet stating the regulations, ethical considerations and requirements from participants. These employees were also informed about confidentiality, and seeing that the open ended questionnaires would be returned by email address, their anonymity could not be guaranteed. However, pseudonyms would be used in the production of the research (if necessary), and any individual characteristics would be altered in order to ensure that personal identification would be impossible. As HIV and AIDS is a sensitive topic, no questions regarding the participants' own status were asked. Questions addressed opinions regarding HIV and AIDS, testing, and disclosure.

All open ended questionnaires and KAP surveys have been kept confidential and in a safe, locked place during the duration of the data analysis and report writing. They will be destroyed after the research has been edited into a number of articles and these articles have been accepted for publication in a peer-reviewed, accredited academic journal. Data is under the researcher's ownership and available only to the researcher and supervisor of this research. The company will not have access to the raw data, only the results.

CONCLUSION

Chapter three presented an overview of the method of the study, explaining how this is an exploratory case study, using a mixed method approach. Data was analysed both quantitatively and qualitatively. Quantitative data was analysed using descriptive, statistics as well as inferential statistics. As the data did not meet the appropriate parametric assumptions, the relevant non-parametric tests were run, including a Chi squared test of association, as well as a Kruskal-Wallis. Qualitative data was analysed in a content analysis, as well as through descriptive statistics and one way frequencies.

Pivot tables were also done on several of the variables for both the qualitative and quantitative data. Participants were informed about the study, and aware of the consequences (or lack thereof) of participating in the study. Participants were also told about confidentiality and anonymity. The raw data was kept confidential and in a safe, locked space during the write up of the report, and will be destroyed after the completion of the research.

CHAPTER FOUR – RESULTS

INTRODUCTION

Results were analysed quantitatively for the KAP survey and qualitatively for the open ended questionnaire items. The data from the KAP survey was analysed using Microsoft Office's Excel and STATISTICA. Descriptive statistics were calculated looking at one way frequencies, means and standard deviations (Whitley, 2002) to establish general trends for each item, and across the items. Knowledge items were added together to get a total score of 38, and participants' responses were then converted to percentages.

Attitudes and practices were scored and reverse scored where appropriate to obtain scores for 'positive' attitudes and 'positive' practices or behaviours (UNAIDS, 2010; SANAC, 2010; WHO, 2010) and then converted to percentage scores. Attitudinal items were grouped together and individuals were awarded a score out of a possible 39. These scores were compared to one another, rather than in terms of other participants. Practices were scored in a similar way, with each individual item being considered on its own. It is noted that this is not the best way to analyse practices and attitudes, and the proposed KAP survey has considered these changes for future use. General demographic questions and items on disclosure were examined individually, rather than given a total score for the section. As disclosure was the dependent variable in the study, it was a standalone section that needed to remain specific.

In order to run parametric tests, certain assumptions need to be met in terms of the data. These assumptions include normal distribution of data, homogeneity of variance, random independent sampling, and interval data (Whitley, 2002; Lu, et al., 2009). The data collected, however, was not from a random independent sample, the sample was not normally distributed, nor was there homogeneity of variance. The data was in fact nominal as it was collated according to categories. As a result

parametric tests could not be run, and the relevant non-parametric tests were run instead (Easton & McColl, no date). The independent variables included the decision of whether or not one would choose to disclose ones HIV status. The dependent variables included knowledge, attitudes and practices of employees.

The Pearson Chi-squared tests of significance of association (Whitley, 2002) were then run on the final scores of sections and demographics (row variables), looking at any significant relationships between groups by the decision to disclose or not to disclose HIV status (column variables). Correlations were done on the demographic variables along with total knowledge scores to see whether any relationships were evident. The non-parametric version on an ANOVA, the Kruskal-Wallis Test, was then calculated to compare the means from the three different sections of knowledge, practice and attitudes in terms of disclosure or non-disclosure (Whitley, 2002).

Qualitatively, the results from the open ended questionnaires were analysed using a content analysis where the main themes were categorised and frequencies calculated on the results (Hsieh & Shannon, 2005). A content analysis was chosen as it seemed the most appropriate means of analysis for this study. As opposed to thematic content analysis, content analysis allows for a more descriptive technique that can work in conjunction with the quantitative data in order to create a more cohesive analysis of results.

This chapter will first describe the features of the sample; present the descriptive statistics of the results and then the inferential statistics of significant difference. As the qualitative questionnaires were used to validate and add detail to the quantitative survey results, these will be discussed within each section as they apply to the survey sections. In this manner an integrated analysis is presented.

DEMOGRAPHIC INFORMATION AND SAMPLE DESCRIPTION

As the KAP survey and open ended questionnaires were anonymous it is not possible to establish whether the same people completed both instruments. In order to establish whether the two groups were similar demographically, the below percentages were calculated. These percentages demonstrate that overall the groups were similar but with minor differences. The KAP survey participants were mostly between 25 and 34 years old, with 59% of the participants being black. Almost half the sample (49%) was either married or living with their partner, and the majority of participants were male (59%). Zulu was noted as the most common first language (33%) with English as the second most common (26%). Many participants did not complete their level of education, with a missing percentage of 38%, although 36% had completed high school. In terms of the qualitative sample, participants were mostly between 35 and 44 years old, with 50% of the participants being black. More than half the sample (65%) was either married or living with their partner, and the majority of participants were male (53%). English was noted as the most common first language (29%) with Zulu coming in second at 20%. In terms of educational level, 47% had completed high school (See Table 1 above). The qualitative participants were thus used to add specific detail to the areas of the KAP survey. They are not included in the statistical analysis and are only used to demonstrate the specific themes surrounding the main areas in the survey.

DESCRIPTIVE STATISTICS OF THE KAP SURVEY AND OPEN-ENDEDQUESTIONNAIRE

The KAP survey and qualitative questionnaire will be discussed below, looking at the combined aspects of Knowledge, Attitudes and Practices, as well as General Behaviours and the Decision of whether or not to disclose HIV status.

Knowledge

In terms of knowledge levels, participants scored fairly highly, with the scores ranging from 58% to 100% (See Table 2 below). Knowledge items were scored individually, and these scores were then collated. This was done with a finite score, with 39 items being considered. Results were calculated as a possible score of 39 and converted into a percentage. The lowest scoring item was whether one could get infected with HIV/AIDS from a blood transfusion, to which only 47% of participants provided the correct answer. Three items were answered 100% correctly by all participants, including knowledge of ARVs, condom use, and infection through food preparation. The mean for the knowledge items was 84%, the median was 89% and the mode 97%. This meant that out of the 38 items, on average the items were answered correctly 84% of the time. See Table 2, and Figure 9 below.

Table 2: Knowledge Items, correctly scored

Knowledge Items	Percent correctly answered
y eating food made by someone infected with HIV/AIDS	100%
How can HIV/AIDS be controlled with treatment	100%
Condoms, used correctly and consistently, reduce a person's risk of HIV infection	100%
By shaking hands with someone who is infected with HIV/AIDS	97%
By working with someone infected with HIV/AIDS	97%
AIDS is caused by a virus or germ called HIV	97%
People suffering from AIDS are easily infected with other diseases (like TB) from which they eventually die	97%
Having sex with a virgin will cure a person of HIV/AIDS	97%
Having sex with a baby/infant will cure a person of HIV/AIDS	97%
By having sex with someone with HIV/AIDS without using a condom	95%
By using the same toilet as someone who is infected with HIV/AIDS	95%
Only women, not men, spread HIV/AIDS	95%

A blood test, taken three months after an infection, will show if someone is infected with HIV	95%
HIV breaks down the body's resistance to fight other diseases	95%
By mixing socially with someone who is infected with HIV/AIDS	92%
HIV can be transmitted from mother to child during breast-feeding	92%
In the event that both partners are HIV positive, there is no need for them to use condoms	92%
HIV can be transmitted from HIV infected mother to unborn child	92%
By sharing cups, knives or forks with someone with HIV/AIDS infection	89%
HIV/AIDS doesn't really exist	89%
As soon as someone is infected with HIV they become very sick and cannot work anymore	89%
From mosquito bites	87%
By sharing needles when injecting drugs into ones body	87%
By traditional circumcision if the same blade is used on many people	84%
If you are HIV positive, you have only a few months to live	84%
A person can get infected with HIV from someone who looks perfectly healthy	84%
By shaving with a razor used by someone infected with HIV/AIDS	82%
HIV is very weak and cannot live outside the human body	79%
By donating blood	74%
By touching an HIV infected person's blood	66%
Having an STI increases your risk of HIV infection	66%
HIV/AIDS be controlled with treatment	63%
HIV/AIDS can be cured	63%
By not using condoms consistently during sexual intercourse	61%
How can HIV/AIDS be cured	58%
A male who has been circumcised has a lower risk of contracting HIV infection through sex than one who has not been circumcised	58%
Someone infected with HIV has signs that you can see that tells you that he/she has a disease	55%
By receiving a blood transfusion	47%

Attitudes

Attitudes were scored as individual items, rather than per individual as a group of items. This meant that each item was analysed. Attitudes were grouped together and scored as a finite score of 39. These were then converted to percentages and labelled accordingly. This was done in order to get a total attitudes score presented as a percentage correct (Peltzer, Matseke, Mzolo & Majaja, 2009).

The highest scoring item was "*HIV/AIDS comes from being bewitched*" to which 97% of the sample strongly disagreed with. The lowest scoring item was "*HIV/AIDS is a punishment from God*" to which only 59% disagreed. Other high scoring items included 95% strongly disagreeing that HIV/AIDS is an ancestral punishment, as well as a further 95% disagreeing that HIV/AIDS only infects specific race groups. Eighty seven percent disagreed that HIV only infects homosexuals, while 82% disagreed that pregnant mothers should have an abortion if HIV positive. A further 82% felt that it is an individual's own risky behaviour that leaves them vulnerable to infection. Sixty seven percent disagreed that partners who cheat deserved to be infected, and 64% disagreed that homosexuals deserved to be infected.

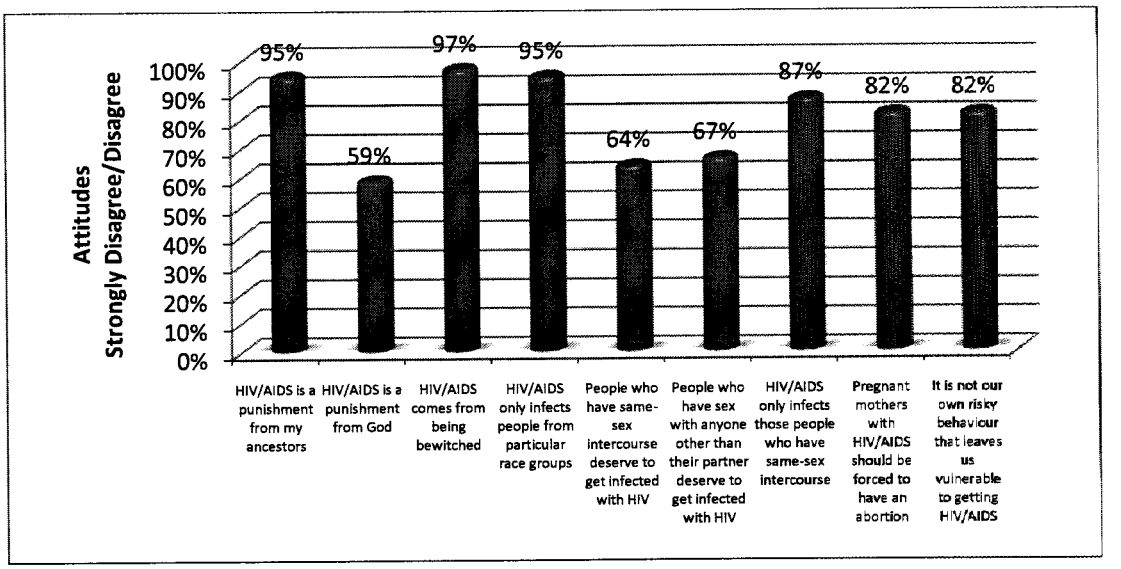


Figure 1: Attitudes – percentage for items to which the strongly disagree/disagree

Other attitudes examined included stigma and the perceptions of those who are HIV positive. All participants (100%) felt that HIV positive employees should not be dismissed, with 95% saying they would work with someone who was infected. The lowest scoring item was *"HIV positive employees need support and help from other employees"* to which only 69% strongly agreed/agreed with.

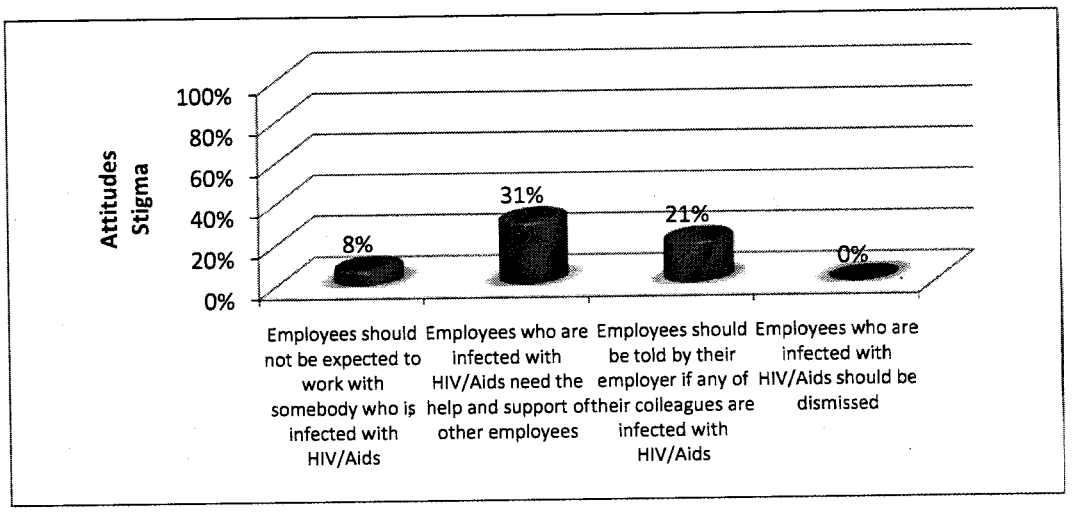


Figure 2: Attitudes - percentage for items suggesting stigma

Participants were also asked about fears regarding HIV and AIDS, looking at the stigma attached, as well as the knowledge regarding transmission. Ninety five percent of the sample was not afraid to work with someone who was HIV positive, and 62% were not afraid to administer first aid. Eighty two percent were not afraid to use the same toilet facilities as HIV positive employees and only 92% were not afraid to care for a sick relative.

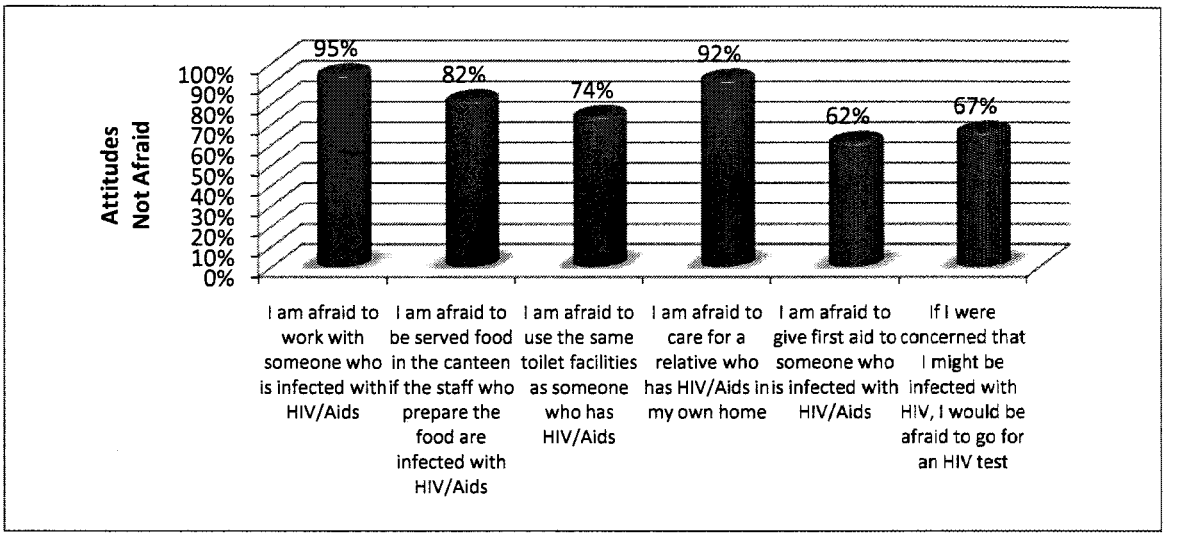


Figure 3: Attitudes – percentage for items regarding fear

Practices

Practices were grouped together, and also scored as individual items. This meant that each item was analysed, rather than each individual participant. Practices were grouped together looking at the 'correct' results per item. A correct score is defined as a risk reduction behaviour (Peltzer, Matseke, Mzolo & Majaja, 2009), and scored out of a possible39. These were then converted to percentages and labelled accordingly. This was done in order to get a total attitudes score presented as a percentage correct (Peltzer, Matseke, Mzolo & Majaja, 2009).

The graph below depicts the percentage of 'correct' responses for each of the items. Thirty three percent of the sample said that they always carried a condom with them, with 26% stating they always use a condom when they have sex with their husband/wife/live-in partner, and almost half the sample (49%) claimed they always used a condom when they had sex with any other partners. Seventy seven percent thought they would use a condom when they next had sex, and 77% agreed that they would use a condom if their partner insisted. Eighty two percent said they would go for an HIV test if they were concerned that they might be HIV positive.

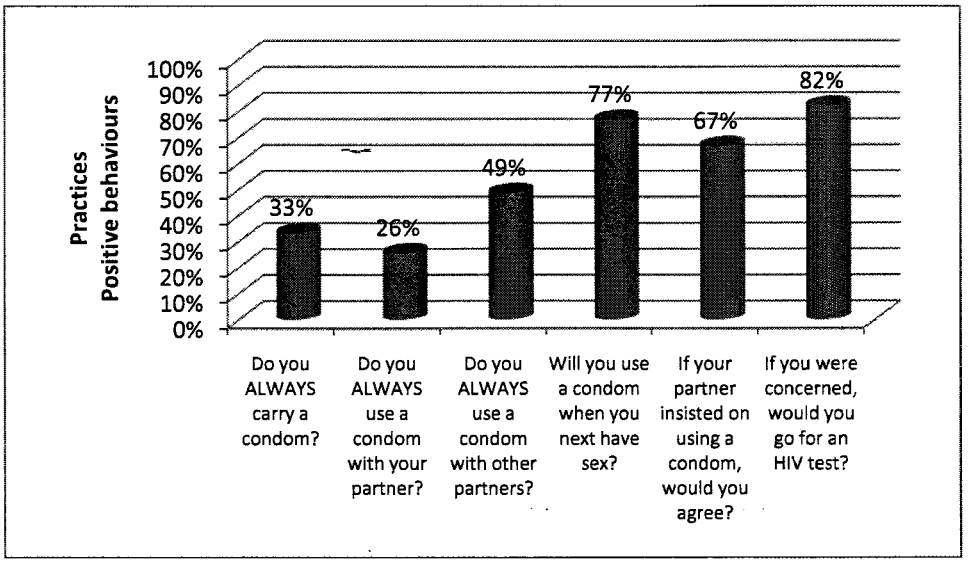


Figure 4: Practices – percentage per item for positive behaviour

The remaining practice items on the questionnaire were discarded due to insufficient data where very few people attempted to answer the questions. This section provided 22 questions on practices. With 39 participants, this resulted in 858 possible responses. The response rate was exceptionally low, at 27%, with only 234 of the possible 858 questions being completed. This section was therefore removed in terms of the analysis. These items can be found in Appendix A. As so many respondents did not answer these questions, the items were further examined. It would seem that the above question was not clear in terms of *who* should respond to the items and who should not. The proposed KAP survey has addressed this issue.

Participants were asked general questions about HIV and AIDS. Eighty two percent of the sample knew where to go if they wanted to get tested, with 79% knowing someone who had died of AIDS related illnesses. Only 62% of the sample said that the threat of AIDS had made them use safer sexual practices.

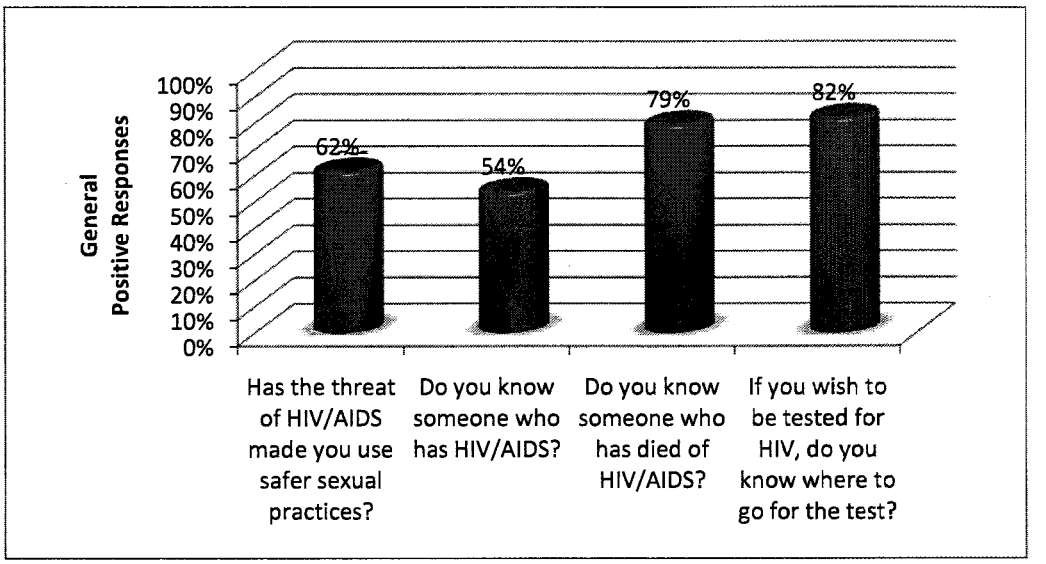


Figure 5: General – percentage for items with positive responses

Participants were then asked whether they would disclose their HIV status to their company, if they were to test positive. The responses provided three way split that was almost equal, with 10 participants stating they would disclose (26%), 11 stating they would not disclose (28%) and a further 11 (28%) stating that they were unsure whether or not they would disclose their HIV positive status to their employer.

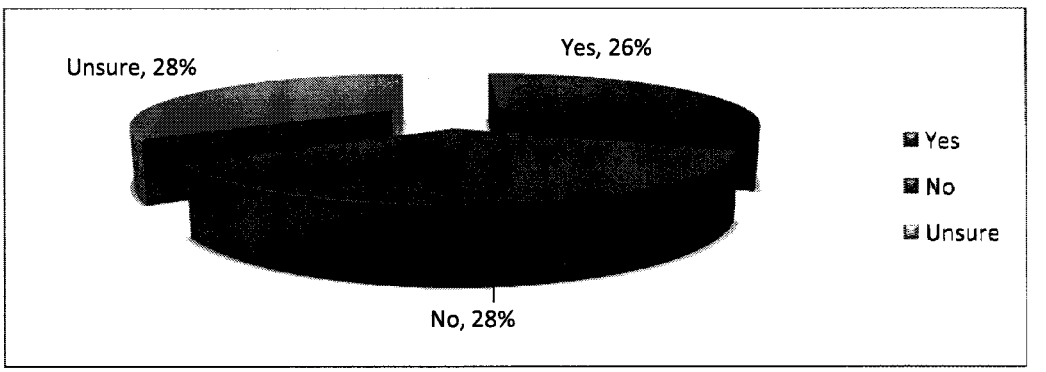


Figure 6: Whether employees would disclose their HIV positive status to the company

When asked why they would not disclose, 10% were afraid that they would lose their jobs, although 56% said this was not the case. Thirty one percent were scared that they would be treated differently at work, with 38% claiming they were not afraid of being treated differently. Twenty three percent did not want anyone to know their status, which is why they would not disclose to the company, however 46% said this was not the reason they would not disclose. Twenty six percent noted there was no reason in disclosing to the company, with 23% claiming there was no benefit in disclosing. Forty four percent disagreed with both these items, stating it was NOT because there was no reason to disclose/nor because they saw no benefit.

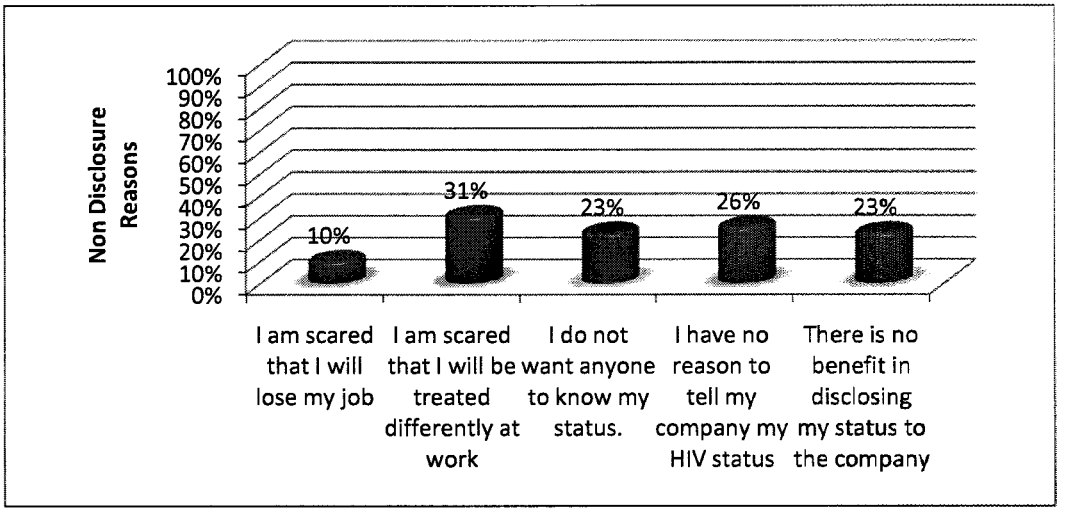


Figure 7: Disclosure – percentage who answered "yes" as to why they chose non-disclosure

When asked why they would disclose, 28% said they believed their company would support them emotionally, and 26% because they believed the company had a right to know. Twenty one percent felt the company had always been supportive and this was no different. Fifteen percent felt the company would support them medically and 13% said they would support them financially.

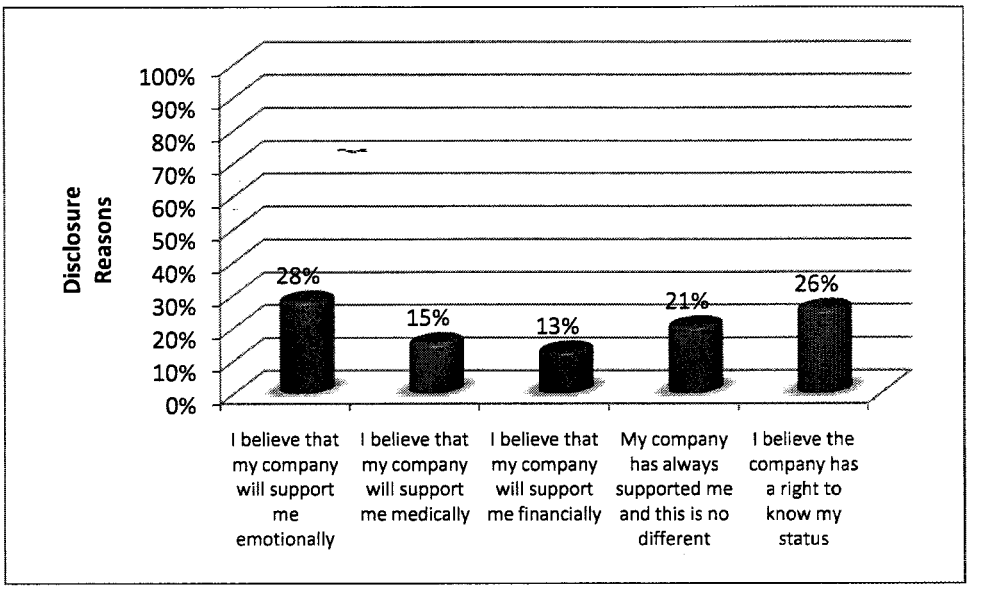


Figure 8: Disclosure – percentage who answered "yes" as to why they chose disclosure

Qualitative Data – Descriptive Analysis of content

In terms of the qualitative data, 50% of respondents felt HIV and AIDS did have an impact on productivity in the workplace. Fifty three percent felt employees should disclose their status to the company, with 62% saying they would disclose their status. Fifty six percent felt they would like to know more about HIV and AIDS, with 82% wanting this information to come from the company. Seventy one percent of the sample did not believe HIV was a threat to them.

The table 3 below presents an overall summary of the open ended questions, noting the themes that were evident and the percentage of the sample who reported these responses. These results will be discussed in the following chapter.

Table 3: Summary of Qualitative Responses

Question	Responses
What is your perception of HIV and AIDS in the workplace	• It does make a difference to productivity – 17 (50%) • It does not make a difference to productivity – 10 (29%) • I don't know whether or not it makes a difference to productivity – 3 (9%)
Please offer specific examples of this	• HIV positive employees can still do their job - 10 (29%) • I have had previous experience with HIV positive employees – 5 (14.7%) • It has an impact as HIV positive employees will need more sick leave – 5 (14.7%)
How do you feel about disclosure of HIV status	• Employees should disclose their HIV status to the company – 18 (53%) • It is the employee's personal decision whether or not he/she should disclose his/her HIV status to the company – 13 (38%) • Employees should not disclose their HIV status to the company – 1 (3%)
Do you think you would disclose your status to the company out of choice	• Yes – 21 (62%) • No – 7 (21%) • Unsure – 3 (9%)
Why/Why not?	• So that the company can understand when I need time off – 8 (24%) • It has nothing to do with the company – 5 (14.7%) • I would only if I were required to disclose – 4 (12%) • Being HIV positive is not the end of the world – 3 (9%) • I am afraid of the stigma – 2 (6%) • The company has a right to know – 2 (6%) • So that I may enjoy the benefits of treatment – 1 (3%)
Why, in your opinion, do people choose not to disclose their HIV status to employers?	• Stigma/Fear of being retrenched – 26 (76%) • Their right to privacy – 2 (6%) • Lack of knowledge – 1 (3%)
Do you think you know enough about HIV/AIDS?	• No, I would like to know more – 19 (56%) • Yes, I know enough – 11 (32%) • I know the basics, but there is more I could learn – 2 (6%)

Would you like your company to provide information about HIV/AIDS?	• Yes – 28 (82%) • No – 3 (9%)
Why/Why not?	• It is important to understanding the disease – 22 (65%) • It is the company's own decision (policy) – 3 (9%) • The government has provided enough information – 2 (6%)
Do you think HIV/AIDS is a threat to you?	• No – 24 (71%) • Yes – 7 (21%)
Why/why not?	• It is a threat but one can avoid it – 5 (14.7%) • It is a threat to all of us – 4 (12%) • I do not put myself at risk – 2 (6%)

INFERENTIAL ANALYSIS – TESTS OF SIGNIFICANT DIFFERENCE

The Kruskal-Wallis Test was run to determine whether there were significant differences between the variables of knowledge, attitudes and practices for the groups' decision to disclose. These were calculated to have a knowledge total, an attitudes total, and a practices total. Attitudes were kept in separate groups as myths, fear and stigma were viewed as important elements in themselves. They do, however, fall under general attitudes. Disclosure was categorised according to the decision to disclose, the decision to not disclose and unsure whether or not to disclose status.

Knowledge, attitudes and practices were each scored and analysed in a Kruskal-Wallis against the decision to disclose. Total scores for Practices and Knowledge were run producing no significant results. Attitudes were separated into three groups dealing with general attitudes, stigma items and attitudes regarding fear. A further item of testing was calculated as a category of its own. None of the items were significant, suggesting that there were no significant relationships between

knowledge, attitudes, and practices, and the decision of whether to disclose HIV status. Although it is an unusual result as compared to previous studies, it is possible that this result was due to the small sample size.

In order to establish whether any of the demographic variables were related to the decision to disclose, a chi-square test of association was calculated. In order to ensure that the sample size for each cell was large enough, demographic variables were separated into other categories. This included: highest level of education being school or tertiary level, and marital status into married and unmarried. It was, however, noted that a divorcee might have very different opinions to someone who was single, and so this test was done twice, once with dichotomous variables and again with the three original categories. Neither of these tests was significant. The number of partners was classified into one partner or less, versus more than one partner. Sex remained dichotomous as male and female; whereas age was condensed into 'less than 35 years' and 'above 35 years'. These ages were chosen based on the risk categories associated with groups above and below 35 years of age (Motsoaledi, 2010). The demographic variables of language and race were not used in the chi-squared tests as the groups were too small and would not provide reliable data.

Table 4: Summary Table depicting χ^2 values and p values for demographic variables against the decision to disclose HIV status

Summary Table: Expected Frequencies * = p < 0.05		
	If you were to test positive for HIV would you share this information with your employer?	
	Chi-square	p-value
Education	χ^2= 4.59	p = 0.03*
Marital Status	χ^2= 0.12	p = 0.73
Partners	χ^2= 1.85	p = 0.17
Sex	χ^2= 0.34	p = 0.55
Age	[illegible]= 2.70	p = 0.10

The only demographic variable that was significant with the decision to disclose or not to disclose was the level of education. The more educated one was, the more likely one would be to disclose ones status. The other demographic variables such as marital status, the number of partners in the last 12 months, sex and age were not significant.

Pearson's correlation was also run on the demographic variables against the knowledge scores. None of the results were significant, and thus not presented in the final write up.

In terms of the qualitative data, Table 3 above offers a summary of the themes grouped according to percentages. Figure 8 below depicts a graphical representation of the most common qualitative answers according to the various responses.

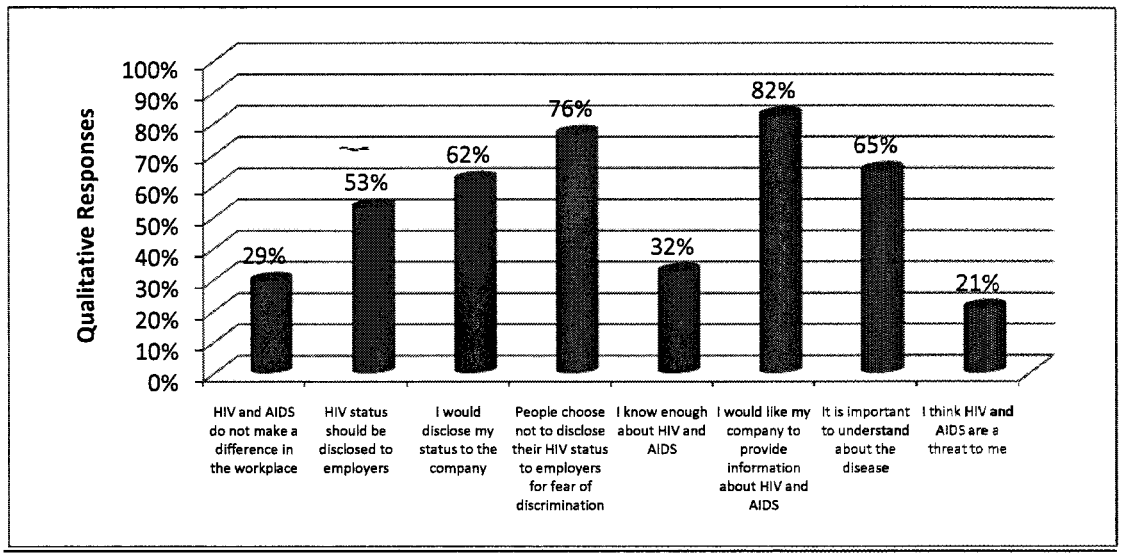


Figure 9: Percentage of qualitative responses according to themes

Twenty nine percent of the qualitative sample felt that HIV and AIDS did not make a difference in the workplace. Respondents were asked to explain why they felt this way, offering an example. These responses included previous experience (9%), absenteeism as a result of being sick (15%), and HIV is not a very serious disease (12%). Other responses were not in line with the questions asked and included clichés such as *"Know your status early. Don't have sex without condoms. Always play safe".*

The second item on the questionnaire asked what employees thought about disclosure of HIV status to employers. This, once again, was a question which allowed for a yes/no response along with an explanation. Fifty three percent felt that employees should disclose their status, while only 3% felt they should not. Other responses included *"it is the person's choice whether they want to disclose"* (38%) and 6% did not provide an answer for this question.

Participants were then asked whether they would disclose their own HIV status to the company, to which 62% responded that they would. Twenty one percent said they would not, while 9% said that they were unsure whether or not they would disclose their status.

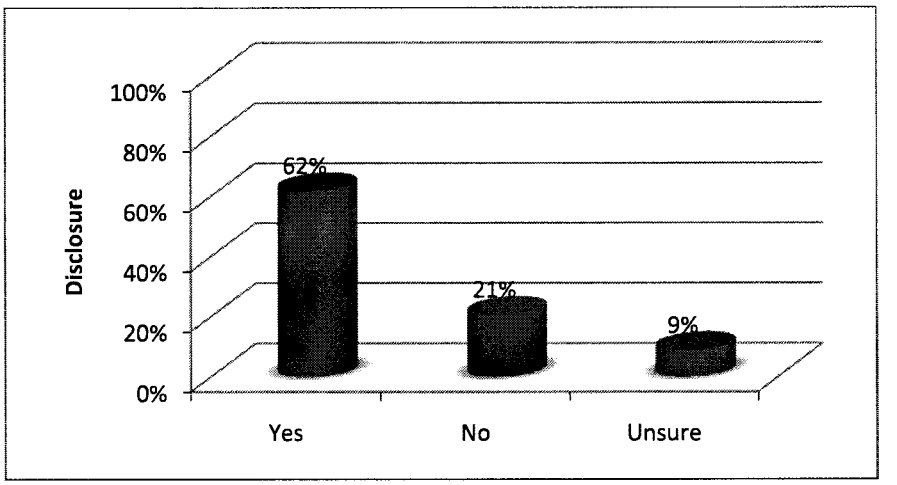


Figure 10: Whether employees would disclosure their HIV status to the company

When asked to explain their choice, employees provided a number of different explanations. These included:

Table 5: Explanations regarding decision to disclose HIV status

Explanations regarding decision to disclose	*Number of participants*	*Percentage*
So that the company can understand when I need time off	8	24%
The company has a right to know	2	6%
I think I will	2	6%
I would be the example most people can learn from, encourage others because being positive is not the end of living	2	6%
It would allow future planning	1	3%
So that I can enjoy the benefits of treatment	1	3%

Table 6: Explanations regarding decision not to disclose HIV status

Explanations regarding decision not to disclose	*Number of participants*	*Percentage*
I will not as it is my own problem/decision	5	15%
I will only if required	4	12%
I will only if the company gives us more information regarding it, or teaches us about the dangers of HIV	4	12%
I will not, because it doesn't hurt anyone	4	12%
For fear of stigmatisation	2	6%
No explanation only *"they must not know my status"*	2	6%

Participants were then asked to speculate as to why other employees chose non-disclosure above disclosure. The overwhelming response (76%) felt this was a result of fear of stigmatisation. Only one participant (3%) felt this was a privacy issue. There were several responses that were not relevant to the question asked (9%), however one response in particular seemed to be answering a different question:

> *You need time-off if the situation is bad – doctors/hospitals. Depression can take hold of you and you might not be part of the team. Loyalty. Keeping the secret is stressful*

It is assumed that this participant understood the question to mean something else, and perhaps answered why she thought people **would** disclose their status, as opposed to non-disclosure.

Participants were then asked whether they felt they knew enough about HIV and AIDS, and only 32% of the sample felt that they did. Sixty two percent said they would like to know more, with 6% of those stating that they knew the basics but felt

there was more to learn. In terms of whether this information should come from work or not, 82% said *"yes"*, with only 9% stating *"no"*.

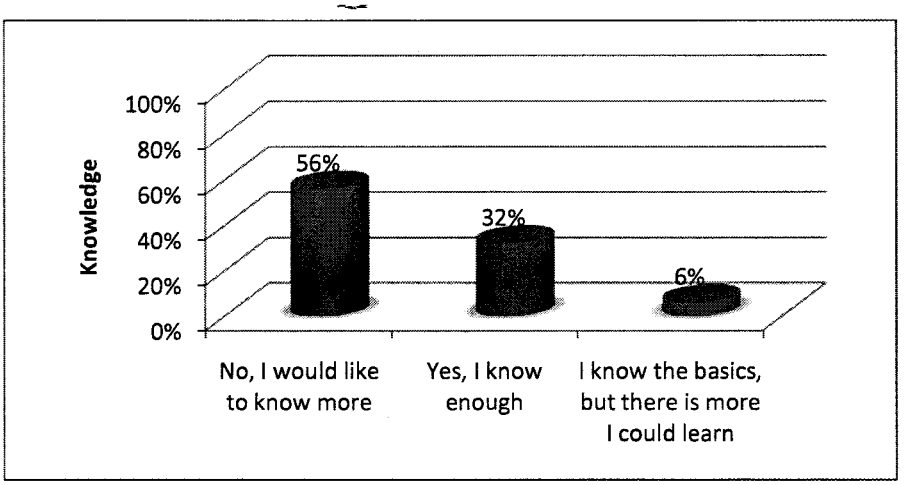


Figure 11: Whether respondents think they know enough about HIV and AIDS

In order to ascertain whether the employees would like this information from the company or elsewhere, the questionnaire asked whether employees would want their company to provide this information, and to explain their choice.

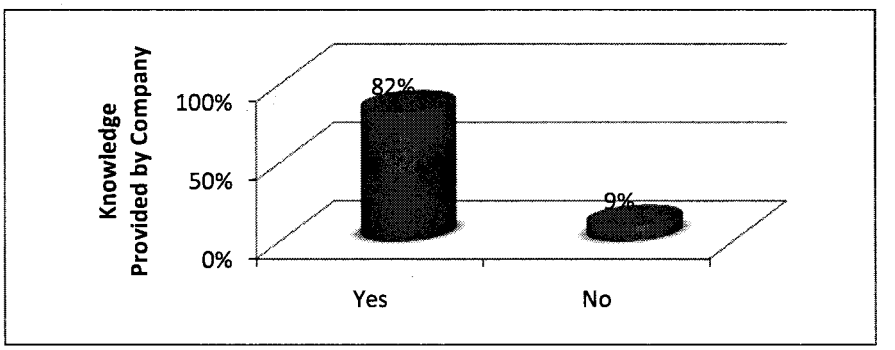


Figure 12: Whether employees would like the company to provide information on HIV

Although 20% of the sample did not provide explanations, 65% felt that it was important to understand the epidemic. Nine percent claimed this was the company's decision and linked to policy, and thus they could not comment. A further 6% felt that it was unnecessary, as information could be found elsewhere.

Participants were then asked a question to gauge their perception of risk and susceptibility. The item asked whether the participant thought HIV/AIDS was a threat to them, and why they felt this way. Seventy one percent felt that HIV and AIDS was not a threat to them, offering explanations such as *"I do not put myself at risk"* (6%). Twenty one percent felt that it was a threat to them, with 12% stating *"It is a threat to us all".* Three respondents (9%) did not answer the question. Figure 13 can be seen below.

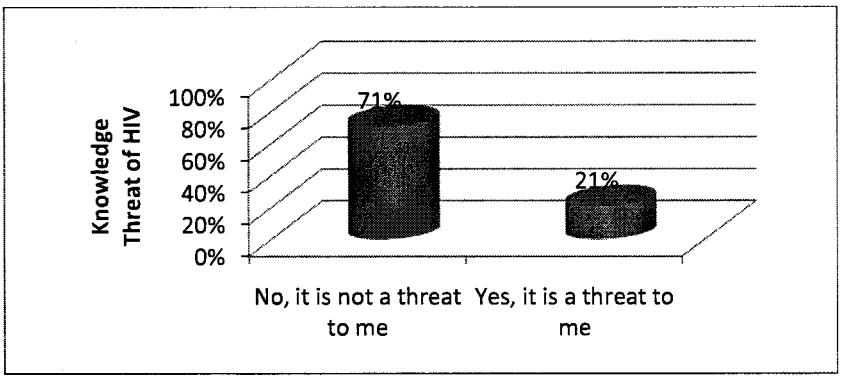


Figure 13: Whether HIV and AIDS was considered a threat

The discussion surrounding why employees felt this way was rife with explanations, and to condense these responses would take away from the richness of the data. The summarised responses can be seen in Table 8 below.

Table 7: Why HIV and AIDS are/not perceived as a threat

Qualitative Responses – Why HIV/AIDS is or is not a threat to you	***Number of Responses***	***Percentage***
• ***I do not put myself at Risk***	2	6%
I believe I am in a faithful marriage and because my religion has so much restrictions, Although I'm always keen to do a test during my pregnancy.		
I have one partner my husband. I don't know anyone that is HIV positive		
Qualitative Responses – Why HIV/AIDS is or is not a threat to you	***Number of Responses***	***Percentage***
• ***HIV and AIDS are a threat to us all***	4	12%
To be ignorant concerning HIV/AIDS can be fatal to myself, my family members and to my fellow workers. If I am not fully aware of HIV/AIDS, in an accident situation etc		
HIV/AIDS is a threat to us all, my personal fears are from blood transfusions		
It is everywhere, that is the reality		
It is a threat because once I make mistake like not having sex without condom I will die it is a threat		
Qualitative Responses – Why HIV/AIDS is or is not a threat to you	***Number of Responses***	***Percentage***
• ***It is a threat but one can avoid it***	5	15%
Not if you protect yourself and don't expose yourself to these elements		
It is a threat but one can avoid it		
Because it is up to every person to do things right by themselves and protection is the key word		
Because I know about it and I know what to do to prevent it.		
Personally I don't think so, I believe that people have an equal chance of getting it if they don't take head of the preventative measures. However HIV to me is more like any other chronic disease that can be managed, it is not as terminal as Cancer, for instance		
Qualitative Responses – Why HIV/AIDS is or is not a threat to you	***Number of Responses***	***Percentage***
• ***Other***	15	44%
Because it can destroy your life		
Is not a threat is virus (disease)		
Because it's sickness like other ones, you can treat yourself		
I don't think so, when you are positive you are positive that's it.		

It's not threat it's just painful but I think it depends how you deal with it. When you find out that you are HIV.
It is not threat to me because you got HIV and AIDS with blood not sitting with ~~them~~
Not unless I have the terrible misfortune to be raped
I live a healthy lifestyle. Working with someone with HIV/AIDS is no threat to me as I can't get it from them. Yes - if health practitioners does not follow procedure I can get it eg. Blood transfusion
If controlled and monitored
The person with AIDS is the same as everyone

These responses can be categorised according to the headings above, including Other (44%), It is a threat but one can avoid it (15%), It is a threat to all (12%) and I do not put myself as risk (6%). While many of the Other comments do not answer the question asked, there is much provided in terms of interpretation and analyses, which will be discussed in the following chapter.

CONCLUSION

In conclusion, the results suggested a high level of understanding and knowledge with regards to the HIV and AIDS epidemic. Attitudes were fairly non discriminatory and practices were adequate. The results showed few significant differences between the groups and the variables, with only practices and education level having a significant difference in terms of the decision to disclose or not to disclose. The next chapter will discuss the implications of these results, as well as how they fit into the literature at large.

CHAPTER FIVE – DISCUSSION

INTRODUCTION

This research took an exploratory approach looking at the HIV and AIDS wellness context of a South African SME as a case study. It did so by examining the current levels of knowledge, attitudes and practices of employees, as well as their reported behaviours regarding disclosure of HIV status. Out of the 96 questionnaires (KAP surveys and open ended questionnaires included)_ distributed, 73 were returned (n=39 for KAP survey, and n=34 for the qualitative questionnaire) resulting in an overall 76% response rate. It is not known which participants completed both instruments as the instruments were anonymous. Therefore, the KAP survey data and qualitative data were kept as separate analyses. Chapter Five discusses the results presented in Chapter Four, relating to the items themselves, the research questions, as well as the context of these results in terms of the literature.

This chapter is organised into the themes of the research questions. Each of these sections will be discussed using and interpretation of both the results of the qualitative and quantitative data, as well as how they can be understood in terms of the literature. These sections will discuss the KAP survey results in relation to the decision to disclose HIV status, as well relationships found between variables. The construction of a KAP survey instrument will thereafter be discussed as this relates to investigating HIV/AIDS within organizational settings, offering suggestions for future research. The limitations and recommendations of the study will subsequently be considered, along with the final conclusion of the research.

Knowledge of HIV and AIDS

Dijkstra, Kangawaza, Martens, Boer and Rasker (2007), in an investigation on knowledge levels in South Africa, found that more than 25% of the health care professionals (HCPs) sampled had incomplete basic knowledge on HIV and AIDS. It was also observed that HCPs had no confidence in their own perceived levels of knowledge, resulting in a marked discrepancy between perceived and actual knowledge surveyed. The KAP survey was developed after pre-testing, although it was not specified who developed the survey and on what literature the questions were based. It is therefore unknown whether questions were targeted specifically at what HCPs should know. Considering HCPs work in an environment where they are exposed to HIV and AIDS on a regular basis, it is worrying that HIV knowledge was so low (Dijkstra, Kangawaza, Martens, Boer & Rasker, 2007). These results demonstrate much higher scores of knowledge than those found in the *South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2008, which* suggests very low levels of knowledge in South Africa in general. According to this survey:

> *In 2008, all levels of accurate knowledge about HIV transmission were below 50% with males aged 25–49 having the highest percentages at 49.2% followed by males aged 50 and older at 48.5%. Females aged 50 and older as well as females aged 15–24 had the lowest scores at 39.4% and 40.6% respectively (HSRC, 2009, p. 51).*

At the heart of these types of discrepancy lies the construction of the survey tool. This theme will be considered in greater detail later in the discussion. While the participants in the current research included employees from a South African SME, it is interesting to note that the mean knowledge levels of these participants were remarkably higher than those of the HCPs (Dijkstra, Kangawaza, Martens, Boer & Rasker, 2007) as well as the average South African in 2008 (HRSC, 2009), at a mean level of 84%. Once again it is worth noting that

these results may be a factor of the various surveys used. Caution should thus be raised regarding administration of a KAP survey, as it must be based on the literature and the key questions the company may want answered.

While the quantitative sample provided exceptional levels of knowledge, much like the HCPs in Dijkstra, Kangawaza, Martens, Boer and Rasker's study (2007), a large proportion of the qualitative sample felt that they did not know enough about the epidemic. Sixty two percent noted that they would like more information on HIV and AIDS, with 6% of those revealed that while they knew the basics, they felt there was more that they could learn. Themes within these responses were clear, with an outright declaration of knowing everything to a contrasting opinion of needing to learn more. While one respondent stated:

> *Yes. I know more than enough;*

Others offered feedback such as:

> *I don't know enough. I would love to know more. Would like to go on a course to be educated on HIV/AIDS, how to help someone with the disease. Knowledge gives you power. I would be able to help and understand the person better*

As well as:

> *No: I think we need to be educated about HIV through clinics at workplaces and pamphlets in our working areas*

When asked whether employees would like more information from work, an overwhelming 82% felt this was necessary. Even though only 62% believed they did not know enough, 20% of those who maintained their knowledge was sufficient asked for information to be made available from the company. It was, however, interesting to note that of these responses, a common theme that arose was that the information wanted was for 'others' rather than themselves.

I would, I think people need to know about it. But I wouldn't suggest it for myself though. I am a bit attached to the subject and rather just not think about it

As well as

Cause some people they don't have enough information

Although employees wanted more information, they were unlikely to admit that they wanted this information for themselves. While it is not known whether this is a result of "othering", it is worth noting in KAP surveys that participants tend to answer in such a manner.

It is important to note that the above knowledge findings could act as a baseline for Company A, and thus provide a stepping-stone to future interventions.

Attitudes surrounding HIV and AIDS

In terms of this study, attitudes were scored according to three categories: myths, fear and stigma. These were labelled "Strongly Disagree", "Afraid", and "Stigma" as the variables in the results. The attitudes scores were individually calculated, and then tested for significant difference using the Kruskal-Wallis test of difference for each of these variables against the decision to disclose HIV status. Items were also placed in a chi-square test of association, as well as examined in pivot tables (See Appendix E, Tables 18-25). No significant results were found, suggesting that no significant relationships exist between the various attitudes and the decision of whether to disclose HIV status. However, it is noted that the sample size was small, and as a result the power of the tests (Whitley, 2002) may have been compromised.

Interestingly all participants (100%) who answered the KAP survey felt that HIV positive employees should NOT be dismissed, with 95% saying that they would work with someone who was infected. This finding was replicated in a KAP survey undertaken at BMW South Africa (BMW South Africa KAP survey Executive Summary), whose employees were unequivocal in their response. However, while only 5% of the current sample were afraid to work with someone who was HIV positive, 50% of BMW employees were uncomfortable working with an HIV positive colleague (BMW South Africa KAP survey Executive Summary). Employees of company A thus presented with comparatively low levels of stigma. This suggests that although Company A has offered no formal policy, employees presented with favourable results. This may be due to the smaller size of the organization compared to a larger organization such as BMW.

Participants were asked to discuss their opinions towards HIV in the workplace in the qualitative questionnaire. According to the result, 50% of the sample noted that being HIV positive did make a difference in the workplace. Responses were categorized into three broad themes:

- Having HIV or AIDS does make a difference in the workplace (50%)
- Having HIV or AIDS does not make a difference in the workplace (29%), and
- I don't know whether this makes a difference in the workplace (9%).

While not all participants elaborated on this point, the common answers included that this resulted in a loss of productivity due to loss of man hours and lost skills in the workplace. One of the participants noted that:

> *many admin workers feel that HIV/AIDS does not apply to them, but only to factory workers*

which highlighted the theme of denial or 'othering'. A question regarding the threat of HIV and AIDS reiterated a similar theme. Seventy one percent of the sample felt that HIV and AIDS was not a threat to them:

> *Personally I don't think so. I believe that people have an equal chance of getting it if they don't take head of the preventative measures. However HIV to me is more like any other chronic disease that can be managed, it is not as terminal as Cancer, for instance*

Themes that emerged in terms of questions concerning the threat of HIV and AIDS included:

- It is a threat, but one can avoid it (15%)
- It is a threat to all of us (12%); and
- I do not put myself at risk (6%)

There seems to be a dissonance around the threat of HIV and AIDS, with only 20% of the sample believing it is a threat to them.

Answers included:

> *Not at all;*
>
> *Is not a threat is virus (like disease);*
>
> *HIV/AIDS is not a threat to me because I can live more years with it that is why is not a threat to me (live longer) with it (HIV/AIDS);*

and

> *It's not threat it's just painful*

These answers, while varied, suggest that HIV is not viewed as a threat by many participants, yet some answers highlight that language may be a factor in some answers. Certain answers also demonstrated cognitive dissonance that employees have employed in order to protect themselves (Kenyon, 2008).

The above issues surrounding HIV's impact in the workplace and the perception of threat are both complicated factors that should be examined in future KAP survey studies. Although these answers provide limited data, they do contribute to what is perhaps missing from current KAP surveys, including internalising questions and relating them to oneself. These attitudes thus provide a foundation on which the company can base future research, as well as provide targeted information.

Practices regarding HIV and AIDS

While Practices in a KAP survey are intended to induce self awareness, the findings of this study suggest otherwise.

In terms of practices, most participants were aware of the risks of unprotected sex, although only 33% said they carried a condom with them all the time. According to an HSRC survey (2009), the most-at-risk populations (MARPs) were the most likely to engage in risky behaviour such as having unprotected sex. MARP can be defined as those who have

> *a prevalence of more than ten percent, or having an unusually high relative HIV prevalence... African females aged 20–34; African males aged 25–49; males older than 50, persons who drink alcohol excessively, and people with disabilities (HSRC, 2009, p. 77)*

The fact that only 33% of the sample claimed to carry a condom regularly is a worrying result as only 49% claimed to always use condoms when having sex with someone other than their live-in-partner/spouse.

In general, self report responses on HIV practices can be perturbing as sampling bias might occur. It is possible that employees provide answers they believe are socially desirable (HSRC, 2009). However, when looking at the results, the number of participants who reveal condom usage were not particularly high (Lagarde, et al., 2001) suggesting that this may not be the case. Twenty six percent of the quantitative sample stated that condoms were used every time they had sex with their spouse/live-in-partner. Further questions were asked regarding why condoms were not always used, however too many participants did not answer these questions, so the responses could not be statistically analysed.

Responses included:

- Condoms are not 100% effective (23%)
- I only have one sexual partner (21%)
- I trust the people I have sex with (18%); and
- I can see if the person is sick (10%)

These answers suggest a level of denialism (Mannberg, 2010) and distancing once again. None of the answers were personalised responses, suggesting an external reason as to why condoms were not always used. It is about the "other" person who they either trust, or it is a about condoms not being "100% effective". This aspect of distancing oneself, and othering was a common theme throughout the results related to HIV and AIDS.

Disclosure

The items on disclosure acted as the dependent variable for the study. Participants were asked in both the KAP survey as well as in the qualitative questionnaire whether or not they would choose to disclose their HIV status. As there was no way to assess whether people had disclosed, self-report was the only measure available.

Results from the KAP survey instruments provided a three way split, with 26% stating they would disclose, 28% stating they were unsure and a further 28% stating they would not disclose. Although many claimed they had no issue disclosing their status, these numbers are still particularly low, and suggest that employees are reticent with regards to HIV status. This trend is noteworthy, as 100% of the sample claimed they would not discriminate against HIV positive employees, considering less than one third was willing to disclose.

Findings from the qualitative questionnaire, however, suggested otherwise. Sixty two percent of the sample said that they would disclose, providing reasons as to why, which can be seen below. The themes found from the data were categorised into the following statements:

- So that the company may understand when I need time off (23%)
- It is my own problem/decision (15%)
- The company has a right to know (6%); and
- So that I can enjoy the benefits of treatment (3%)

Responses were wide ranging and swung between descriptive answers, versus no explanation at all. While one participant noted:

> *I think I will*

others provided detailed explanations such as:

> *Personally yes. Being honest is important to me. When I need to be off to attend clinics appointment or counselling. I don't have to lie to the company to why I need to be off*

as well as