INTRODUCTION

The relevance of HIV-related issues in the workplace apart from those that deal with the health of the worker is often difficult for people to grasp. One would not normally expect people to have sexual relationship at work or to carry out any of the other acts that exposes one to HIV infection. Due to this people feel that the workplace need not concern itself with HIV/AIDS issues. But, across sectors, awareness is growing concerning the impact of HIV/AIDS on work. Health, labour, and business leaders agree: AIDS has a profound impact on workers and their families, enterprises, and national economies. It is a workplace issue and a development challenge” (Franz et al., 2002)

The international communities have continued to demonstrate increasing concerns about HIV/AIDS in the workplace. For example, the International Labour Organisation (ILO, 2001) cited in Good Practice concerning Code of Practice for HIV/AIDS in the workplace. Two of these principles targeted at this direction are stated as follows:

- Recognition of HIV/AIDS as a workplace issue. HIV/AIDS is a workplace issue, not only because it affects the workforce, but also because the workforce can play a vital role in limiting the spread and effects of the epidemic.
- Non-discrimination. There should be no discrimination or stigmatization against workers on the basis of real or perceived HIV status. Discrimination in the workplace reinforces stigmatization of PLWHA. At the same time the workplace offers a unique opportunity to confront social discrimination and stigma by dispelling myths and communicating that there is no need to fear people living with HIV (Good Practice Note December, 2002 No.2, IFC)

The workplace is a microcosm of the attitudes and beliefs of the general public; we do not leave our prejudices or information sources behind when we commute to work. In fact, work is an important component of the social environment of our daily lives and one in which we receive not just information concerning business matters but also information related to issues such as health care and sexual behaviour.

Stigma is linked to power and domination throughout society as a whole. It plays a key role in producing and reproducing relations of power. Ultimately, stigma creates, and is reinforced by, social inequality. It has its origins deep within the structure of society as a whole, and in the norms and values that govern much of everyday life. It causes some groups to be devalued and ashamed, and others to feel that they are superior. For example, long-standing ideologies of gender have resulted in women being blamed for the transmission of sexually transmitted infections or HIV. This has influenced...
the ways in which families and communities react to the seropositivity of women. Many women are blamed for the illnesses from which they and their husbands suffer (Aggleton and Parker, 2002).

Stigmatization is a dynamic process that arises from the perception that there has been a violation of a set of shared attitudes, beliefs and values (Brown et al., 2001). These can lead to prejudicial thoughts, behaviors, and/or actions on the part of governments, communities, employers, healthcare providers, co-workers, friends, and families (Cameron, 1993; Jayaraman, 1998; Zierler, 2000).

Incidentally, most of the people infected with HIV are in the prime of their working lives. The effects are momentous – not just on workers and their families, but on enterprises and entire national and regional economies. HIV/AIDS – related stigma and discrimination affect self-esteem, mental health, access to care, providers’ willingness to treat people with HIV, violence, and HIV incidence.

It is now widely recognized that there are three phases to the AIDS epidemic in any society. The first of these is the epidemic of HIV infection. This enters a community silently and unnoticed. Next follows the epidemic of AIDS, which appears when HIV triggers life-threatening infections. Finally, there is the third epidemic – the epidemic of stigma, discrimination, blame and collective denial – that makes it so difficult to effectively tackle the first two (Mann, 1987).

Goffman (1963), described stigma as an attribute that is deeply discrediting within a particular social interaction. His explanation of stigma focuses on the public’s attitude toward a person who possesses an attribute that falls short of societal expectations. The person with the attribute is “reduced in our minds from a whole and usual person to a tainted, discounted one”.

Goffman’s ideas are a common thread in much of the published research and provide the theoretical underpinnings for much of the literature on stigma and stereotyping.

According to Goffman, diseases associated with the highest degree of stigma share common attributes.

- The person with the disease is seen as responsible for having the illness.
- The disease is progressive and incurable.
- The disease is not well understood among the public.
- The symptoms cannot be concealed.

HIV infection fits the profile of a condition that carries a high level of stigmatization (Goffman, 1963; Herek, 1999; Jones, 1984). First, people infected with HIV are often blamed for their condition and many people believe HIV could be avoided if individuals made better moral decisions. Second, although HIV is treatable, it is nevertheless a progressive incurable disease (Herek, 1999; Stoddard, 1994). Third, HIV transmission is poorly understood by some people in the general population, causing them to feel threatened by the mere presence of the disease. Finally, although asymptomatic HIV infection can often be concealed, the symptoms of HIV-related illness cannot. HIV-related symptoms may be considered repulsive, ugly, and disruptive to social interaction (Herek, 1999).

Factors contributing to these stigmatizing and discriminating responses include lack of knowledge, moral attitudes, and perceptions that caring for PLWHA is pointless because HIV/AIDS is incurable (Daniel and Parker, 1993; Masini and Nwampeta, 1993; Herek and Capitanio, 1993; Blendon and Donelan, 1988; Tesch et al., 1990; Cole et al., 1993).

**Manifestation of Stigma and Discrimination in the Society and Workplace**

Discrimination against HIV-positive persons (or even people suspected of carrying the virus) worsens existing inequalities in society. Screening people for HIV infection in order to bar them from work, deny them promotion, or exclude them from social protection and benefits, counts as AIDS-related discrimination, so do breaches of confidentiality or the refusal to establish alternative workplace arrangements for workers with HIV/AIDS (UNAIDS, 2001).

Gilmore and Somerville (1994) have described what they see as the four-main features of any stigmatizing response: the problem that initiates the reaction; the identification of the group or individual to be targeted; assignment of stigma to this individual or group; and the development of the stigmatizing response. Scambler and Hopkins, (1986) and Jacoby, (1994) have tried to distinguish between felt and enacted stigma. Felt stigma is more prevalent - feelings that individuals harbor about their condition and the likely reactions of others. Enacted stigma refers to actual experience of stigmatization and discrimination (UNAIDS, 2000).

Herek (1990) observed that gay men and
infection drug users are disproportionately susceptible to HIV-related stigma and discrimination. He has found that HIV-related stigma is not necessarily a stigma of the diseased; rather, it is often related to perceived lifestyle ‘choices’ of infected populations or to perceptions about racial and ethnic minorities. In contrast, people who acquire HIV through no action of their own (for example, hemophiliacs and babies of HIV-positive women) have been referred to as ‘innocent’ or ‘blameless’.

Stigma also affects the care of HIV-positive individuals. After a person tests positive, he/she faces decisions that include how to enter and adhere to care and whether to disclose HIV seropositivity to partners, friends, family, colleagues, employers and health care providers (Chesney and Smith, 1999). At each level, a decision to disclose seropositivity may either enhance access to support and care or expose the individual to stigmatization and potential discrimination (Brimlow, Cook and Seaton, 2003).

Accessing health care can be a challenge for people who are HIV positive because the health care system itself is often a source of stigma. Health care professionals, particularly those who infrequently encounter HIV-positive people, can be insensitive to their patient’s concern about stigma. In addition, health care professionals are not always knowledgeable about appropriate procedure for maintaining patient confidentiality (Herker, 1998). The literature on care giving reveals that stigmatization is evident among health care providers. Fear of contagion and fear of death have clear negative effects on health care provider’s attitudes toward and treatment of HIV positive patients (Gerbert, 1991; Weinberger, 1992). There have been many reports from health care settings of HIV testing without consent, breaches of confidentiality and denial of treatment and care. (Tirelli, 1991; Carvalho, 1993; Panebianco, 1994; Ogola, 1990; Masini and Nwampeka, 1993). Failure to respect confidentiality by clearly identifying patient with HIV/AIDS, revealing serostatus to relatives without prior consent, or releasing information to the media or police appear to be problems in some health service (PANOS 1990; Bharat, Aggleton and Tyrer 2001; Singh 1991).

HIV/AIDS policies and programmes may inadvertently contribute to stigmatization and discrimination by differentiating between the ‘general population’ and ‘high-risk populations’, prioritizing actions to prevent HIV spreading to the former from the latter. This approach is often justified in terms of avoiding stigmatization of ‘high-risk population’, since targeting such populations is believed to reinforce the association of HIV/AIDS with marginalized groups. However, focusing on programmes for the general population may also reinforce the perception that it is less important to protect populations that practice ‘high-risk’ behaviours than the ‘innocent and unsuspecting’ general population. It may also result in discrimination against marginalized groups, since those at greatest risk do not receive the resources they need (Parker and Aggleton, 2002).

In societies with cultural systems that place greater emphasis on individualism, HIV/AIDS may be perceived as the result of personal irresponsibility, and thus individuals are blamed for contracting the infection (Kegeles, 1989). In contrast, in societies where cultural systems place greater emphasis on collectivism, HIV/AIDS may be perceived as bringing shame on the family and community (PANOS, 1990; Warwick, 1998). The type of cultural system and where it fits along the continuum of individualism and collectivism will therefore influence the ways in which communities respond to HIV/AIDS and the ways in which stigma and discrimination is manifested.

HIV/AIDS-related stigma and discrimination in families and communities are commonly manifested in the form of blame, scapegoating, and punishment. Communities often shun or gossip about those perceived to have HIV or AIDS (Parker and Aggleton, 2002). In more extreme cases, it has taken the form of violence (Nardi and Bolton, 1991). For example, there have been reports from many countries of attacks on men who are assumed to be gay (Public Media Center, 1995), of violence toward sex workers and street children in Brazil (Daniel and Parker, 1993; Peterson, 1990; Byrne, 1992), and of HIV/AIDS-related murders in Colombia, India, Ethiopia, South Africa, and Thailand (PANOS, 1990; AFAO, 1997).

In individuals, the way in which HIV/AIDS-related stigma and discrimination are manifested depends on family and social support, and the degree to which people are able to be open about such issues as their sexuality as well as their serostatus. In contexts where HIV/AIDS is highly stigmatized, fear of HIV/AIDS-related stigma and discrimination may cause individuals to isolate
themselves to the extent that they no longer feel part of civil society and are unable to gain access to the services and support they need (Daniel and Parker, 1993). This had been called internalized stigma. In extreme cases, this has led to premature death through suicide (Gilmore and Somerville, 1994; Hasan et al., 1994).

Societal laws, rules, policies, and procedures may result in the stigmatization of PLWHA. A significant number of countries have enacted legislation with a view to controlling the actions of HIV/AIDS affected individuals and groups (Tomasevski, 1992).

The laws include legislation for:
· The compulsory screening and testing of groups and individuals.
· The prohibition of PLWHA from certain occupations and types of employment.
· Forced medical examinations, isolation, detention and compulsory treatment of infected persons, and;
· The restriction of certain behaviours such as injecting drug use and prostitution (Gosting and Lazzarini, 1997).

International experience now shows that such measures serve only to increase and reinforce the stigmatization of PLWHA and those at greatest risk of contracting the virus. In many countries, discriminating practices such as the compulsory screening of certain populations or ‘risk group’ cause both the further stigmatization of such groups and a misplaced sense of security among those who don’t see themselves as belonging to those sections of the population. A recent review, moreover, pointed to the gaps between more liberal national policies and the application of these policies and principles in practice (Gruskin, Hendricks and Tomasevski, 1996). Even where supportive legislation exists, its application may be partial, uneven or ignored.

While HIV is not readily transmitted in the majority of workplace settings, the supposed risk of transmission has been used by numerous employers to terminate or refuse employment (Barragan, 1992; Gostin, 1992; PANOS, 1992; Shisam, 1993; Omangi, 1997). There is also evidence that where people living with HIV/AIDS are open about their serostatus at work they are likely to experience stigmatization and ostracism by others (PANOS, 1990; Gostin, 1992; Gostin and Lazzarini, 1997).

Pre-employment screening takes place in many industries particularly in countries where the resources for testing are readily available and affordable. In poorer countries, screening has also been reported as taking place, especially in industries where health benefits are available to employees (Jackson and Pitts, 1991). Employer-sponsored insurance schemes providing medical assistance and pensions to employees have come under increasing pressure in countries that have been seriously affected by HIV/AIDS. Some employers have used this pressure to deny employment to PLWHA (Whiteside, 1993; Williams and Ray, 1993). Only a few companies in developing countries appear to have developed strategies to combat fear, stigma and discrimination in the workplace and an equally small number have begun to define the responsibilities of employers towards employees with HIV/AIDS (Jackson and Pitts, 1991; Bezmalinovic, 1996).

According to De Bruyn (1998) the workplace remains a potentially unsafe environment for people with HIV/AIDS, whether they are currently at work, returning to work, or looking for work for the first time. Employers may:
· breach confidentiality regarding HIV status;
· fail to accommodate the needs of people with HIV/AIDS regarding the duties they are able to perform, the schedule and side effects of their regimen of drugs, time required for medical appointments, or leave required for temporary illnesses;
· lay off people with HIV/AIDS because of the cost of group disability insurance or group drug insurance premiums and or; tolerate an environment in which other employees harass, avoid, or ostracize people with HIV/ AIDS.

Although not all employers, supervisors and co-workers react badly when they discover that a person is HIV-positive, disclosure at work remains risky.

Herek (1990) referred to previous studies that found that people with AIDS are evaluated more negatively than people diagnosed with other incurable diseases, even by health care workers. He also cited studies that found it was common for caregivers to avoid people with AIDS and to overestimate the risks of casual contact with PLWHA.

HIV/AIDS-related stigma extends beyond individuals living with HIV/AIDS to volunteers, caregivers, co-workers, and professionals who provide HIV/AIDS services or advocacy. For
example some patients will switch medical providers when they learn that the provider is HIV-positive or cares for HIV-positive patients.

The study carried out in Uganda on HIV and AIDS-related discrimination, stigmatization and denial (Monico, Tanga, Nuwagaba, Aggleton and Tyrer, 2001) identified some determinants of HIV/AIDS-related discrimination, stigmatization and denial which echo those found in previous research:

(i) **Knowledge Levels**: may have been reported as good, but people with HIV in community and family settings continue to experience discrimination stigmatization and denial. Knowledge about the life expectancy of a person with HIV was found to be particularly poor.

(ii) **Lay and Culturally Determined Beliefs**: some of which are based on witchcraft would also appear to have a significant effect on people’s ability to take in information or message about HIV and to change their behaviour and attitudes accordingly.

(iii) **Finance**: within families, concern about the financial burden of caring for someone with HIV would also appear to fuel HIV/AIDS-related discrimination stigmatization and denial.

(iv) **Sexual Shame**: In Uganda, HIV is generally regarded as a sexually transmitted disease. Many Ugandans seem to feel that HIV is a badge of sexual shame and this attitude also affects the care that people with HIV are likely to receive.

(v) **Lack of Effective Policy**: Although, the Uganda government has promoted excellent principles of non-discrimination in its National strategic framework on HIV/AIDS, such guidelines carry very little legal weight. Those guidelines have not yet been translated into enforceable laws to protect people with HIV/AIDS from discrimination stigmatization and denial.

De Bruyn (1999) has identified five contributing factors to HIV/AIDS-related stigma which include:

- The fact that HIV/AIDS-related is a life threatening disease
- The fact that people are afraid of contracting HIV
- The disease’s association with behaviors (such as sex between men and infecting drug use) that are already stigmatized in many societies.
- The fact that PLWHA are often thought of as being responsible for having contracted the disease; and
- Religions or moral beliefs that lead some people to conclude that having HIV/AIDS is the result of a moral fault (such as promiscuity, or “deviant sex”) that deserves punishment.

King (1988) carried out a survey of attitudes about HIV/AIDS among young people in Canada, and found that 55% to 77% of young people thought that students with HIV infection should be allowed to attend regular school classes, but fewer agreed that people with HIV/AIDS should be allowed to be teachers. Even fewer thought that people with HIV/AIDS should be allowed to serve the public as waiters, chefs, or hair stylists, or to work in hospitals.

Only 11 to 25% of young people stated that they could not befriend someone who has AIDS. At the same time, some youths believed that people with HIV/AIDS were getting what they deserved (7 to 16%) or thought that they should be quarantined.

Herek and Capitano (1993) found that HIV/AIDS-related stigma exists in a ‘significant minority’ of the U.S. population. They used a 1991 random-digit telephone survey to examine stigmatizing attitudes about HIV/AIDS. Of the 1,145 households surveyed, 538 were defined as ‘black’ households. Responses differed little by race. The authors found that 27.1% of all participants gave a ‘stigmatizing’ response when asked if they felt angry towards people with AIDS. When asked if people living with AIDS should be separated from the general population, 35.7% of the participants gave a stigmatizing response. When participants in the survey were asked if people with AIDS have “gotten what they deserved”, 20.5% of white respondents and 16.5% of black respondents said yes. 33% of white respondents agreed that people with AIDS should be legally separated, or quarantined compared with 40% of black respondents, and 19.2% of white respondents said they would avoid a co-worker with AIDS, compared with 21.1% of black respondents. White women were the least likely of any group surveyed to overestimate the risks of casual contact or to anticipate that they would avoid people with AIDS (Herek and Capitano 1993).

As documented in the relatively few Indian studies of social responses to the epidemic thus
far social reactions to people with AIDS have been overwhelmingly negative (Bharat et al., 2001). For example, 36% of respondents in one study felt it would be better if infected individuals killed themselves; the same percentage believed that infected people deserved their fate (Ambati et al., 1997). Furthermore, in this same study, 34% of respondents said they would not associate with people with AIDS, while about one fifth stated that AIDS was a punishment from God. A hostility index developed in this study revealed that almost 93% of respondents harboured at least one hostile view, and more than half held three or more such views. Negative responses and attitudes towards PLWHA are strongly linked to general levels of knowledge about AIDS and HIV and, in particular to the causes of AIDS and routes of HIV transmission. In most societies, AIDS is associated with groups whose social and sexual behaviour does not meet with public approval. In one study by Ambati et al. (1997) 60% of respondents believed that “only gay men, prostitutes and drug users can get AIDS”.

In a study of 244 fourth- and fifth year medical students of Sindh Medical College, Karachi, to measure knowledge and attitudes of medical students to people with HIV and AIDS, 25% of respondents believed that people with AIDS should not be allowed to use common toilets and that health personnel should attend such patients only while wearing special clothing. 27% believed that HIV-infected children should be removed from school. (Ali et al., 1996).

Studies on HIV and AIDS related Stigma, discrimination and denial (Monico et al, 2001; Bharat et al, 2001) were carried out in both Uganda and India. In Uganda, the research identified a range of issues relating to stigmatization and discrimination in the workplace. It was reported that some companies tested prospective employees prior to offering them appointment. Others, (including prominent multinational companies working in the country) were said to require workers to take a HIV anti-body test before sending them on what were considered to be expensive training courses. Still other companies were said to test workers opportunistically, assigning lighter jobs to those who tested positive. A few companies reportedly paired people with HIV/AIDS with ‘deputies’ who could take over when the affected person became sick. Except in a few instances, respondents felt it difficult to be open about their serostatus at work. This reticence was as much a product of self-stigmatization and concern about the possible responses of co-workers as it was linked to the likely actions of employers. Despite government efforts to encourage openness and discourage discrimination, serious anxieties prevent people from being open about their serostatus at work. As one man puts it. “Even when the boss would not have terminated your services, the rumours from the colleagues are enough to force him to take action and give your job to somebody who is not ‘sick’.

Despite TASO’s (The AIDS Support Organization of Uganda) efforts and the work of all those involved in HIV issues in Uganda, and despite the fact that nearly every household has been affected with HIV/AIDS, it was evident in the early to mid 1990’s that stigma and discrimination were still very serious problems in the country (Monico et al, 2001). Particular negative effects have been identified in ‘culturally defined out groups’ (Barnett and Blaikie 1992), among whom HIV and AIDS-related stigma has led to many of those infected and affected withdrawing from social contact with others altogether (Asingwire, 1992). Such people almost inevitably had more difficulty accessing health-promotion activities, the result being poorer mental and physical health for those affected (Rwabukwali, 1992). 53.5% of respondents in one study said that people with HIV/AIDS should not be able to work alongside those who are uninfected (Uganda Ministry of Health, 1995).

In India, a study of seven large Mumbai-based business revealed that none had a policy on AIDS and that mid-level management have adopted a “wait and see” attitude waiting to see how many workers become infected and whether this has an impact on productivity (Hira, et al., 1998). At the same time, anecdotal evidence of employment-related discrimination and stigmatization has begun to emerge. Individual cases of job loss, emotional isolation and denial of employment on the basis of HIV status have
been reported in the media (Chinai, 1995). However, employment does not emerge as a major setting for discrimination and stigmatization—probably because most respondents had not disclosed their HIV/AIDS status at work. Many had a strong fear of social isolation and stigmatization and they worried about losing their jobs if they were to reveal their status. This fear was validated by those who had shared their HIV/AIDS diagnosis with work colleagues and management. Social isolation, hostility, and attempts to dismiss HIV-positive workers were reported. Often this hostility came from coworkers and other staff, who put pressure on management to sack HIV-positive employees. Labeling and isolation sometimes forced HIV-positive workers to leave their jobs and either settle for poorer-paying work or keep moving between jobs to avoid being stigmatized at successive workplaces. Respondents felt that HIV transmission via everyday contact at work was a general workplace anxiety. Group discussions in workplaces mentioned the following as perceived possible transmission routes: sharing utensils in the canteen, drinking water from the same glass, sitting in close proximity while operating machinery, or having infected people as group members. Anxieties such as these led some HIV-positive people to quit their jobs rather than risk the humiliation of being removed by employers or colleagues. The physical distance maintained by co-workers at meal times or general working hours was reported to be particularly stigmatizing. During focus group discussions hospital staff also admitted that they didn’t feel comfortable being close to their HIV-positive colleagues. Many asymptomatic individuals felt there was no need to reveal their status at work as long as they remained physically healthy. Businesses and industries by and large do not have AIDS policies, and no special benefits are offered to workers with HIV. As a result, respondents had to make up other excuses whenever they needed to take leave for medical treatment or because of opportunistic infections. Such secrecy interfered with daily treatment schedules. For example, some workers avoided taking medication in the presence of colleagues. It also affected health and safety precautions: respondents were concerned that if they took particular care, they might make others curious.

Management discrimination against HIV-positive workers seemed to be due to lack of knowledge and/ or the absence of protective policies. Discrimination and Stigmatization from management made it particularly difficult for individual workers to have their rights. It is not uncommon for HIV-positive workers to find themselves unable to do their job. They may no longer have the stamina, or the job may expose them to substances or activities that make them sick. Two respondents who worked in a transportation department were finding it difficult to work on buses moving through polluted areas of the city. Both kept falling sick due to throat infections and asthma. Although they had requested lighter jobs, neither was confident of receiving a favourable response from management (Bharat et al., 2001). Fear of AIDS is prevalent in India. Workers in the food business are especially vulnerable to discrimination. The study highlighted the case of a food vendor in Mumbai, who sold BhelPuri (a popular local snack) in an upper-middle class residential area. When the man tested HIV-positive, his doctor informed the police; the next day, police officers removed him, as he was felt to “pose a risk” to the health of his affluent customers. He tried explaining that he could not infect others by selling snack-foods, but the police were not convinced (Bharat et al., 2001).

According to statistics from the Zambia Demographic Health Survey (2001-2002) almost two thirds of women and three in five men believe that a worker who is sick with AIDS should not be allowed to keep working. 61% of Zambian women and 53% of men said they would not buy vegetables from HIV-positive food seller or shopkeeper. A recent survey in Quebec found that among workers who disclosed their HIV status, one in five had problems with their employer (Jalbert, 1997). Of the 59 respondents who were working, half had disclosed their HIV status. A similar rate of disclosure was found in a study of people with HIV/AIDS in Newfoundland in 1991-92, where, out of 25 people, 10 were employed and of these, 4 had disclosed their HIV status. Of these 4, one was laid off and another fired as a result of telling their employer (Laryea and Gien, 1993)

**Purpose of the Study**

The purpose of this study was to investigate those factors that predispose people to stigmatize
and discriminate against people living with HIV/AIDS. This will help to give a direction to programmes aimed at combating such attitudes. From the literature, one has been able to summarize into three the major factors that seem to predispose people to stigmatize and discriminate against people living with HIV/AIDS. These factors are: HIV knowledge level, conservativeness of values and fear of contagion. The researchers also felt that biographical indicators particularly gender and age could be influential in the manifestation of stigma and discrimination and hence their inclusion in the present investigation.

**Research Questions**

Consequently, the following research questions were answered to achieve the aforementioned objectives of the study.

1. What is the composite effect of sex, age, knowledge level, conservativeness of values, and fear of contagion on the manifestation of stigmatization and discrimination against HIV/AIDS seropositive persons in the workplace?

2. What is the relative effect of sex, age, knowledge level, conservativeness of values, and fear of contagion on the manifestation of stigmatization and discrimination against HIV/AIDS seropositive persons in the workplace?

**METHODOLOGY**

**Research Design:** The study employed a descriptive survey design. This survey usually entails the collection of data on a number of variables at a single juncture. Many of such variables cannot be manipulated as in an experimental research design, and their relationships with other variables can only be examined through a social survey.

**Sample:** A sample of 275 employees were selected by stratified random sampling techniques from 5 organizations, comprising 1 multinational company, 2 secondary schools, 1 state parastatal, 1 local government headquarter and 1 bank in Osun State, Nigeria. Out of a total of 275 questionnaires issued, 183 were returned and found useable.

The age categorizations of the subjects are: 15-19 (13 or 7.1%), 20-29 (71 or 38.8%), 30-39 (68 or 37.2%), 40-49 (24 or 13.1%), and above 50 (7 or 3.8%). Their mean age was 30.4 years with standard deviation of 6.5.

The highest qualifications among the subjects are as follows: 1.1 % primary school education, 29 % secondary school education, 14.8% N.C.E and 55.2% tertiary education. 93 are females and 90 are males.

**Instrumentation:** The Workers’ Attitude to PLWHA Scale, constructed by the researchers, was used to measure HIV-related knowledge level conservativeness of value, fear of contagion and stigma among workers. Most of the 35 items in the scale were taken from existing literature on stigma and discrimination measurement. The first section on the scale (Section A) measures HIV knowledge level of the respondent (e.g., ‘HIV cannot be transmitted by hugging an infected person’). Under Section B, items 10 to 14, 16 and 17 measures the conservativeness of values (e.g., ‘HIV/AIDS is a punishment for bad behaviour’), items 22 to 26, plus item 30 measures fear of contagion (e.g., ‘I would not feel comfortable to share work tools with a colleague whom I knew has HIV/AIDS’). Item 15, Items 18 to 21, and 27 to 29 measures the stigma and discrimination level of the respondent; (e.g., ‘A person with AIDS should not be allowed to continue working’). The subject responded to these items using a 4-point Likert scale ranging from strongly agree to strongly disagree. An additional section, D, is not used in scoring but is to obtain additional information about the respondent. These questions will show any previous exposure to PLWHA, (e.g., ‘do you know anyone who is infected with HIV or has died of HIV?’) or any possible experience of work-related HIV discrimination (e.g., ‘did you have to take a mandatory HIV test during recruitment?’). These items are responded to by ‘yes/no’ options.

Reliability was tested using the scores of 70 workers in the public service of Oyo state and reliability coefficients ranging between 0.53 to 0.73 were obtained.

**Procedure:** The questionnaire was administered individually through the help and support of the principals (for the schools), the personnel manager (the multinational company), a political contact (the Local government headquarters), a senior employee (the state parastatal), and a customer (the bank). A total of two hundred and seventy-five questionnaires were distributed out of which one hundred and eighty-three were returned representing a return rate of 66.6%. This was considered adequate bearing in mind the
volatility and sensitivity of the issue under investigation.

**Data Analysis:** The Pearson product moment correlation coefficient and multiple regression analysis (stepwise) were used to analyze the data. The criterion measure or dependent variable was stigma and discrimination (SandD) while the predictor or independent variables were sex, age, knowledge level, conservativeness of values and fear of contagion.

**RESULTS**

Results in the table 1 indicate a significant negative correlation between stigma and knowledge level (r = -.311, P < 0.01), between conservativeness of values and age (r = -.206), and between fear of contagion and knowledge level (r = -.273, P < 0.01). It also shows that conservativeness of values and fear of contagion had significant and positive correlations with stigma (r = 0.500 and 0.397, P < 0.01).

Table 2 shows that the use of the three variables, knowledge level, conservativeness of values, and fear of contagion to predict stigma level yielded a coefficient of multiple regression (R) of 0.585 and multiple regression square of 0.331 (adjusted). The analysis also gave a standard error (SE) of 3.250 and F-ratio of 31.084 significant at 0.05 level. The remaining two variables; sex and age, did not meet the criterion for inclusion operated by the stepwise procedure.

Table 3 shows the relative contributions of conservativeness of values, knowledge level and fear of contagion to the observed variance in SandD as indicated by the R and R² (adjusted) values at the various steps of the regression analysis. From the results shown above, Conservativeness of values had R and R² values of 0.500 and 0.246 respectively. Knowledge level entered the equation at step 2, and the cumulative value of R² was .305. Fear of contagion entered at step 3, raising the final value of R² to 0.331. These values were significant at the 0.05 level. The results confirm that conservativeness of values is the best predictor of stigma against PLWHA among the sample studied.

Table 4 gives the regression coefficient (standardized and unstandardized), the standard error of estimate and the t-ratio associated with each of the variable as well as the level at which it is significant. The contribution of each of the variables in order of importance are conservativeness of values (β = .404; t = 6.069; P < 0.05), knowledge level (β = .213; t = -3.545; P < 0.05), fear of contagion (β = .161; t = 2.648; P < 0.05), sex (β = .060; t = .968; P > 0.05); and age (β = .055; t = .077; P > 0.05). The results show that the t values associated with conservativeness of values, knowledge level and fear of contagion are significant at 0.05 level.

| Table 1: Means, Standard deviations and intercorrelations among predictor variables and stigma and discrimination against PLWHA |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                   | 1     | 2     | 3     | 4     | 5     | 6     |
| 1. SandD          | 1.00  | .100  | -.107 | -.311**| .500**| .397**|
| 2. Sex            | .100  | 1.00  | -.125*| .055  | .056  | .162* |
| 3. Age            | -.107 | -.125*| 1.00  | .027  | -.206**| -.082 |
| 4. Knowledge Level| -.311**| .055  | .027  | 1.00  | -.128*| -.273**|
| 5. Conservativeness of values | .500**| .056  | -.206**| -.128*| 1.367**|
| 6. Fear of Contagion | .397**| .162* | -.082 | -.273**| .367**|
| Mean              | 17.50 | 1.50  | 35.43 | 26.26 | 14.16 | 13.00 |
| Standard deviation| 3.98  | .50   | 8.52  | 3.71  | 3.67  | 3.39  |

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

| Table 2: Multiple regression analysis on stigmatization and discrimination data |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Source of Variation | df | SS     | MS     | F-ratio | P     |
| Regression         | 3  | 984.999| 328.333| 31.084  | <0.05 |
| Residual           | 179| 1890.750| 10.563|          |       |
| Total              | 182| 2875.749|        |          |       |
DISCUSSION

First, it must be noted that the two independent variables, conservativeness of values and fear of contagion, as well as the dependent variable, (stigma and discrimination), are all actually manifestations of a stigmatizing attitude in one way or the other. Whereas conservativeness of values measures one’s opinion about the ‘rightness’ or ‘wrongness’ of becoming infected and fear of contagion is closely related to the respondent’s sense of self preservation; stigma on the other hand is a more direct manifestation. The belief for example that ‘people with AIDS should be legally separated from others to protect the public.’ The results therefore highlight those factors that seem to predispose people to this direct and confrontational manifestation of stigma. It also shows some other interesting interrelationships among all the variables.

Table 1 show that the two factors, conservativeness of values, and fear of contagion both have positive relationships with the stigma manifestation. This confirms De Bruyn’s (1999) findings that people’s fear of contracting HIV and religious or moral beliefs that lead some people to conclude that having HIV/AIDS is the result of a moral fault deserving of punishment, are among the factors contributing to HIV/AIDS-related stigma. It also bears out the studies by Gerbert (1991) and Weinberger (1992), that fear of contagion and fear of death have clear negative effects on health care provider’s attitudes toward and treatment of HIV positive patients. The significant contribution of conservativeness of values to the prediction of stigma and discrimination could be attributed to the primordial beliefs about sexually transmitted diseases. Such beliefs could easily predispose people to stigmatization and discrimination against PLWHA. These stereotypic beliefs are often difficult to dislodge.

The result that fear of contagion is a potent predictor of manifestation of stigmatization and discrimination against PLWHA cannot be unconnected with the various myths about HIV/AIDS. The fact that HIV/AIDS is a deadly disease coupled with the reality that there is no known cure for now may have generated heightened fears about the disease as well as tendency to manifest deep rooted stigma and discrimination against the carriers.

Not surprisingly knowledge level had a significant but negative relationship with stigma and discrimination. It also had a significant negative correlation with both conservativeness of values and fear of contagion. This implies that the more knowledge people have of HIV mode of transmission the less strict they are in their judgment of people with HIV/AIDS, the less fearful they are of contracting the disease and the less their manifestation of stigmatization and discrimination against PLWHA. This is actually what one would expect and what previous studies have shown. Studies by Daniel and Parker (1993) for instance found that factors contributing to stigmatizing and discriminatory responses include lack of knowledge, moral attitudes, and

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>R</th>
<th>R²</th>
<th>S.E.</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conservativeness of values</td>
<td>.500</td>
<td>.246</td>
<td>3.451</td>
<td>60.443</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Knowledge level</td>
<td>.559</td>
<td>.305</td>
<td>3.315</td>
<td>16.219</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Fear of contagion</td>
<td>.585</td>
<td>.331</td>
<td>3.250</td>
<td>8.225</td>
<td>.005</td>
</tr>
</tbody>
</table>

Table 4: Relative contributions of the independent variables to the prediction of the dependent variable (stigma and discrimination)

<table>
<thead>
<tr>
<th>Variable Description</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>.479</td>
<td>.494</td>
<td>.060</td>
<td>.968</td>
</tr>
<tr>
<td>Age</td>
<td>2.251E-03</td>
<td>.029</td>
<td>.005</td>
<td>.077</td>
</tr>
<tr>
<td>Conservativeness of values</td>
<td>.438</td>
<td>.072</td>
<td>.404</td>
<td>6.069</td>
</tr>
<tr>
<td>Knowledge level</td>
<td>-.228</td>
<td>.068</td>
<td>-.213</td>
<td>-3.354</td>
</tr>
<tr>
<td>Fear of contagion</td>
<td>.212</td>
<td>.080</td>
<td>.181</td>
<td>2.648</td>
</tr>
<tr>
<td>(Constant)</td>
<td>14.200</td>
<td>2.353</td>
<td>6.036</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>
perceptions that caring for PLWHA is pointless because AIDS is incurable. Four interventions on reducing stigma tested information-based approaches alone (Ashworth et al., 1994; Hue and Kaufman 1998; Mwamba 1998; Soskolne et al 1993) and these studies found positive effects (i.e., increased tolerance of PLWHA) in comparison to control groups (Brown et al., 2001). Hence, improving the knowledge of people can have an effect in diluting their strict and judgmental values as well as decreasing their fear of contagion.

Sex and age did not make significant contribution to the prediction of stigmatization and discrimination against PLWHA. The implication of this is that stigmatization and discrimination against HIV/AIDS individuals cuts across the factors of sex and age. Interestingly sex did have a significant relationship with fear of contagion implying that females had a greater fear of contracting HIV than males even though there appeared to be no difference in their manifestation of stigma and discrimination against PLWHA. This seems to contradict the findings of Herek and Capitanio (1993) in a survey carried out on the U.S. population that white women (as against white men and black men and women) were the least likely of any group surveyed to overestimate the risks of casual contact or to anticipate that they would avoid people with AIDS. However, the attitude of black women as against that of black men was not mentioned. Nevertheless, the study does seem to agree with the pattern of results obtained from the Zambian Demographic Health Survey (2001-2002) where 61% of Zambian women as against 53% of men said they would not buy vegetables from a HIV-positive food seller or shopkeeper. It would not be surprising to find, especially in the third-world setting, that women manifest a greater fear of contracting HIV than men. Research has begun to document how gender-related discrimination, coupled with coping with the burdens of the impact of the epidemic, have conspired to further contribute to women’s and adolescent girls’ overall vulnerability to HIV and the consequences of AIDS. There is evidence from recent UNAIDS-supported studies of household and community responses to HIV/AIDS in developing countries (Warwick, 1998; Aggleton and Warwick, 1999) that seropositive women are likely to be treated differently from men. Whereas, men are likely to be ‘excused’ for the behaviour that resulted in the infection, women are not. Rejection by both the husband (who infected the woman) and the wider family members has been reported as common (Bharat and Aggleton, 1999). Women therefore who see such obvious discrepancies in the society are likely to display a greater fear of contagion.

Also, age had a significant and negative correlation with conservativeness of values implying that older workers seem to have a more tolerant view of PLWHA than the younger workers. This would seem to contradict Herek’s (1999) findings that younger people typically manifest lower levels of HIV-related stigma than do older people. One could suspect that the older respondents could have been more liberal in their answers rather than in their values. That is, they may be more prone to want to give the ‘right’ responses than do the younger. Again, it will be necessary to carry out a study where there is a greater divergence in age, before one can make any conclusion. Even though age was made one of the variables it must be remembered that this study was carried out among people who essentially were all working-class.

The results of the multiple regression analysis shown on Table 2 indicate that when the five factors, sex, age, knowledge level, conservativeness of values and fear of contagion are taken together, 33% of the variance in S and D was accounted for by conservativeness of values, knowledge level and fear of contagion (R^2 adjusted = .331). As stated earlier, sex and age did not enter the equation at all. This means that 67% of the variance in stigma level is to be explained by factors outside of this study. However, the F-value (31.084) significant at .05 indicates that the prediction capacity of the predictor variables did not occur by chance. The major contributor to the variance was conservativeness of values (25%), (Table 3), followed by knowledge level (6%), and followed by fear of contagion (2%). This is a similar pattern to that found in the study by Herek and Capitanio (1998) where it was found that while 41% of heterosexual adults based HIV-related attitudes on religious or political values, only 13% based their attitudes on concerns for personal safety. Table 4 gives the regression coefficients for the independent variables and the corresponding standardized regression coefficients. The beta values for conservativeness of values, knowledge
level, and fear of contagion were found to be significant at alpha level of 0.05.

It would have been expected that knowledge level would be a stronger contributor to the prediction of stigmatization and discrimination against PLWHA. However, the fact that people are knowledgeable about a disease may not necessarily translate to positive attitude about the disease nor lower stigmatizing and discriminating attitude towards the victims. Knowledge of a particular disease, particularly HIV/AIDS which for now is incurable and deadly, can generate heightened fears and predispose such knowledgeable individuals to discrimination and stigmatization against victims. This explanation and finding is corroborated by the work of Monico et al (2001) who found that among some trained medical staff, fear of contracting HIV appeared to be a significant factor affecting practice and attitude.

**IMPLICATIONS OF FINDINGS**

The findings of this study have great implication for intervention programs to reduce stigma against PLWHA. As far as addressing the stigmatizing attitudes of workers is concerned, the study has shown that awareness and intervention programmes must lay special emphasis on those areas that deal with people’s opinion of what HIV represents. It is also apparent that increasing HIV knowledge level can have some impact on people’s fear of contagion as well as their HIV-related values. The public seems to be well versed on how HIV can be transmitted, but many are still afraid of even shaking hands with a PLWHA. Helping professionals such as counselling psychologists, social workers, clinical psychologists and the likes have crucial roles to play in reshaping or restructuring attitudes of people towards HIV seropositive individuals. Counselling interventions rooted in rational emotive therapy and cognitive restructuring will be very helpful in this regard. People need to be made to confront their fears and this is an area where PLWHA themselves can make a difference, and where they are already making a difference. It is necessary to have more PLWHA bold enough to declare their status publicly and spear head the awareness programmes that make the public realize that the person with HIV is your next door neighbour, your cousin, your brother, the very same person you have been safely associating with before you discovered he was HIV positive. And even if it is true that wrong life style choices (whether that of the PLWHA or the person he/she is legally living with) led to a great deal of HIV cases, who among us is ‘good’ enough to become the judge. Casting a casual glance at the lifestyle of many Nigerians one may be compelled to conclude that what makes the difference between the HIV positive person and his HIV negative counterpart is more of ‘luck’ than ‘goodness’.

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