

**PSYCHO-SOCIAL PREDICTORS OF SERO-STATUS DISCLOSURE AMONG
PEOPLE LIVING WITH HIV/AIDS IN IBADAN**

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Abstract

It is evident that disclosure of HIV test results is important for effective treatment, support and care of persons living with HIV/AIDS. Disclosure of test results can be an effective action because it can facilitate the prevention of HIV transmission to sexual partners. In this light, it is important to encourage intervention programmes that promote VCT and disclosure of test results. These programmes can be effectively promoted only if people know the factors as well as the circumstances under which people show their test results to others. Although there are many people who voluntarily take an HIV test and who may also show the results of their test to others, no systematic studies have been carried out to thoroughly understand the dynamics that characterize the nature of disclosure. This study therefore sought to investigate the influence of HIV stress, locus of control and social support on serostatus disclosure among PLWAs.

The study adopted a descriptive survey method. Two hundred PLWAs voluntarily participated in the study. Four research instruments were used to elicit data from the participants. These include HIV stress scale, locus of control scale, social support scale and serostatus disclosure scale. Two research questions were answered using multiple regression analysis at 0.05 level of significance.

The result of this study found that the linear combination of the effect of HIV/AIDS Stress; Social Support; Health Locus of Control; on HIV/AIDS status disclosure was significant ($F = 29.239$, $df = 3,196$, $P < 0.05$). The total variation accounted for by the independent variables was .299 (30%).

It was observed that each of the independent variables had varying contributions to the dependent variable. While HIV/AIDS stress had ($\beta = 178, P < .05$), Social Support had ($\beta = .459, P < .05$) and Health Locus of Control ($\beta = .052, P > .05$). Thus, while HIV/AIDS Stress and Social Support were found individually significant, Health Locus of Control was not.

These findings were discussed and recommendations made, principal among which is that there is the challenge and urgent need to create a climate within families, communities and institutions in Nigeria where people feel safe and encouraged to self-disclose.

Key Words: Disclosure; HIV/AIDS; Locus of Control, HIV Stress, Social Support, PLWHAS.

Background to the Study

In looking at the factors influencing disclosure of HIV/AIDS status to enhance treatment and prevention among people living with HIV/AIDS (PLHAs), we must first look at the history of HIV/AIDS in Africa, starting with examination of the literature (Ankrah, Schwartz and Miller, 1996). In 1982, only one African country, Uganda, had an estimated HIV prevalence rate higher than two percent. However, by the early 1990s, some were beginning to fear for the future of Africa (and Uganda in particular), as they compared AIDS to the Black Death of 1347-1351, which killed one third of the population in Europe. In Uganda at the time, AIDS had become the number one cause of adult mortality (Ainsworth and Semali, 2000).

Over 40 million people worldwide are thought to be infected with HIV, with over 30 million of these people residing in Africa. Some critics say that the impact of AIDS in Africa has been exaggerated, alleging that the reported high rates of HIV prevalence are due to poor record-keeping in sub-Saharan Africa (Donnelly, 2003). A report by Donnelly (2003), however, estimated that between 34 million and 46 million were infected worldwide. This conclusion was based on data collected from pregnant women at pre-natal clinics and from door-to-door surveys in at least seven countries.

No matter how one looks at it, Africa is the continent hardest hit by HIV/AIDS. It is a continent that accounts for more than two thirds

of all HIV/AIDS cases in the world, although it comprises only ten percent of the entire global population (Akukwe and Foote, 2001).

Notwithstanding the high rates of infection, Africa has been able to keep going mainly because people in the communities that have been hit hardest by HIV/AIDS have relied on each other for support to sustain their morale in their battle against the AIDS epidemic. Given that people may live happier and healthier lives when they disclose their status and enjoy access to rich, rewarding, and supportive social relationships (Akukwe and Foote, 2001), empirical research is needed to provide data on how social support, locus of control, stress of HIV/AIDS apply to foster HIV/AIDS status disclosure

HIV/AIDS experts agree that knowledge of one's own HIV serostatus, combined with effective counselling, may facilitate individual behaviour changes that reduce the risk of HIV infection and protect sexual partners as well. HIV/AIDS researchers also understand that the disclosure of one's serostatus, particularly if one is HIV positive, is a complex process often fraught with fear of rejection and discrimination. It is that process that this study sought to better understand. By accumulating a large number of accounts of individual experiences in learning their test results, living with that knowledge, and finally disclosing their serostatus to others, this study contributes to a better understanding of that process.

At present, there are many unknowns: Why do people decide to take an HIV test? Under what circumstances do they get tested? How do they decide to disclose or not to disclose the test results to others? To whom do they disclose? How do those who receive the information react? And finally, what is the impact of disclosure on the infected person? We also do not know what patterns of disclosure exist and how social relations determine these patterns. Understanding these issues is critically important to promoting intervention programmes that aim not only to encourage people to take an HIV test but also to disclose the results of the test to others. Generating this kind of information and understanding was the prime objective of this study.

Literature Review

What is disclosure?

The definition of disclosure is "the action of making something known, or a thing, especially a secret, that is made known" (Oxford Advanced Learner's Dictionary, 1995). Disclosure is the ability to share deeply personal information with another person or group of people. Issues of trust, safety and confidentiality are critical.

The most difficult part of this disease for a person is to be quiet. If you could try to talk more about this AIDS. It's almost like cancer, but people talk about that. Why can't they talk about this? I think more people are dying very early because this thing is killing them inside, alone. They don't speak out (Gibbs, 2000).

According to Norman, Chopra, and Kadiyala (2005) an individual's experience of the disease is largely informed by the decision of whether or not, how and to whom to disclose their status.

Costs of HIV Disclosure

The literature indicates a strong case for increased levels of disclosure around HIV/AIDS, but acknowledges that it is a high risk decision (Zea, Reisen, Poppen, Bianchi and Echeverry, 2005). Paxton (2002) writes about disclosure being a very stressful experience as the discloser exposes him or herself to the perceived and sometimes real stigma of friends, family and community. Stigma is a significant factor that restricts people living with HIV from disclosing their status. Skinner and Mfecane (2004) point out that "fear of discrimination limits the possibility of disclosure even to potential important sources of support such as family and friends." The stigma of living with HIV is well described in prevailing literature.

The threat of violence, particularly for women, has been identified as a reason not to disclose by Vetten and Bhana (2006). However, males also fear for their personal safety as reports of social or racism, abandonment and even murder due to disclosure of HIV status reveal. Pembrey (2007) notes that South African men show a particular concern for being stigmatised and discriminated against for being HIV positive, as this may impact upon their ability to find employment and provide for themselves and their families. Akani and Erhabor (2006) confirms that barriers to HIV serostatus disclosure include fear of abandonment, stigmatisation, victimisation, and the

possibility of confidants telling others, as well as fears of accusations of infidelity.

Campbell, Foulis, Maimane and Sibiya (2005) refer to stigmatisation as politically orchestrated to maintain the status quo, undermining the voices of marginalised groups such as young people, women and the poor. They state:

Various forms of stigma are united by the way in which they serve to support systems of social inequality and social difference and to reinforce the interests of powerful social actors seeking to legitimize their dominant: status" (Campbell et al., 2005).

Benefits of Disclosure

Whilst there are many social factors at work to create a hostile environment for disclosure to take place, the benefits of disclosure are significant. These are discussed below:

Psychological Wellbeing

Despite the high risks associated with HIV disclosure, there is a potentially higher price to be paid for non-disclosure. It is widely known and understood that suppressing tough emotions about difficult experiences can negatively impact a person's health and lead to stress-related problems. As one HIV participant in a study said: "When you haven't disclosed, you are always worried" (Norman et al. 2005).

The knowledge of one's HIV status is burdensome and research indicates that the experience of disclosure represents a lifting of this burden (Norman et al. 2005). Paxton (2002) supports this notion, referring to the paradox of 'coming out' and facing a perceived stigma only to find the experience to be psychological liberating. Zea, Reisen, Poppen, Bianchi and Echeverry (2005) researched the patterns of HIV disclosure among gay and bisexual men and the consequent costs and benefits in terms of mental health and wellbeing. They found that disclosure elicited increased social support, leading to improved mental health.

Economic and Social Support

Serovich (2001) sees disclosure as the gateway to education, healthcare and social support which results in improved physical

health. In South Africa, this would include home-based care and HIV specific social grants. In a study of two distinct communities, one in a ten-urban setting and another in a rural setting in South Africa. Norman et al. (2005) found that disclosing to loved ones and professionals generally meant increased access to both material and emotional support. This research indicates that whilst loved ones usually take time to come to terms with the news, many express concern and a willingness to help. The study also found family members to be the most supportive, both materially and emotionally. However, in these communities, neighbours also bolstered family resources or filled the chasm left by deceased family members (Norman et al., 2005).

Norman et al. (2005) found that another positive spin-off of disclosure is that people who are taking medication don't have to do so surreptitiously. Family support has also been shown to increase adherence to the complex medical regimes required (Norman et al., 2005). From a medical service delivery point of view, the creation of an enabling environment for disclosure of HIV status is essential, and a necessary prerequisite to acquiring economic and social support (Serovich, 2001).

Activism and Destigmatisation

Research indicates that through the process of disclosure and the support gained, people feel empowered, to assume positive leadership roles and become more active in the fight against HIV (Norman et al., 2005). They describe how HIV disclosure presents people with an opportunity to educate others and challenge stigmatisation within their social network and community. Disclosure to family members is nearly always combined with an attempt at education regarding HIV to alleviate stigma and increase understanding of their own condition (Norman et al., 2005).

Medley, Garcia-Moreno, McGill and Maman (2004) reviewing research on women disclosing their HIV positive status, found generally positive outcomes from disclosure. They indicate that perceived stigma is invariably greater than actual or experienced stigma. Researchers have also found that those in contact with people living with HIV showed a more tolerant attitude towards the disease and those infected. Campbell et al. (2005) believe that local communities need to engage in more critical thinking about why stigma exists and

how it is socially maintained, in order to challenge it at its core. They write that: "community participation has a key role to play in promoting forms of critical consciousness that both expose and challenge the unequal social relations drawn on and sustained by stigma" (Campbell et al. 2005).

Paxton (2002) believes that public disclosure can also be a powerful tool in reducing stigma, breaking the silence and helping individuals overcome fear and prejudice. Clearly, it involves courageous leadership, as was demonstrated in 2000 when Justice Edwin Cameron, a prominent South African judge, publicised his HIV positive status. The response from the public was largely positive. "Disclosure as a means to eradicate stigma as well as to increase resistance is thus a powerful tool in protecting the next generation from similar experiences of discrimination and vulnerability" (Norman et al., 2005).

Reducing the Spread of HIV

Van Niekerk (2005) supports the need for transparency: "People living with HIV and AIDS should be able to live openly and experience compassion and support within their communities." Van Niekerk's view is that the more people are able to disclose their status, the more personalised the risk and experience of HIV/AIDS will become, with efforts to reduce the spread of the disease being more effective.

There is growing evidence that disclosure of HIV status is an essential behavioural change that will reduce the incidence of HIV (Norman et al., 2005). Knowing someone with HIV is also positively associated with increased condom use and negatively with multiple partners and casual sex partners.

Negotiating Disclosure

Disclosure of one's HIV positive status is a complex issue. Norman et al. (2005) describe a temporal stage, between non-disclosure and full or public disclosure, during which time a person manages their HIV disclosure. This is usually a period of struggle before disclosure to those nearest and dearest and can sometimes take up to two years. This management of HIV disclosure involves people expending great deals of energy to avoid detection. Appreciating the difficulties individuals have in deciding when, to whom, and how to disclose their status, Serovich (2000) formulated six stages of disclosure:

- *Make a disclosure list of all people considered for possible*

disclosure.

- *Evaluate the nature of each relationship for levels of satisfaction.*
- *Assess the recipient's unique circumstances to determine the appropriateness of disclosure.*
- *Assess the recipient's HIV knowledge and possible reactions.*
- *Question, motive for disclosure to each person.*
- *Make a decision and pick a suitable time and place for disclosure to occur.*

Serovich (2000) points out that disclosure is not a once-off event but rather an ongoing process that unfolds over the life of the infected person. This highlights that there is a time and place for everything and that disclosure is a very personal decision based on many complex factors. During the management of a person's HIV positive disclosure, 'tactics' are applied to maintain relationships, while at the same time feeling out the impact an HIV positive disclosure would have on various relationships (Norman et al., 2005). Norman et al. (2005) indicate that the strategies used to manage and counteract the fear of discrimination versus the need to disclose need to be better understood. One of the primary tactics employed is to assess how an intimate partner may react to the disclosure.

The fear of losing a valued relationship makes HIV disclosure a very real way to test levels of commitment. An interesting tactic described in the literature is to facilitate alternative ways for a partner to find out, rather than through direct disclosure (Norman et al., 2005).

Factors Influencing Disclosure

A number of theories have been developed to explain why and when, people disclose their HIV positive status. One of the main theories called the Disease Progression Theory contends that it is the disease's progression that triggers disclosure (Kahlitman, 1995). Its premise is that as the disease progresses from HIV to AIDS. It becomes harder for people with HIV to hide their status. As physical, symptoms and visits to the hospital increase, so the need for additional resources necessitates disclosure (Kahlitman, 1995). This theory was developed, prior to the advances in anti-retroviral medication now available, when disease progression was more consistent and predictable.

Ironically, the more uncertain the course and prognosis of the disease has become, the more difficult it is to predict disclosure patterns.

Another theory, developed by Serovich (2001), is known as the Consequence Theory. This theory postulates a relationship between disease progression and disclosure based upon the perceived consequences of disclosure. It proposes that as the disease progresses, so do the pressures to evaluate the consequences of disclosure. If the rewards for disclosing outweigh the associated costs, then disclosure will take place. Hence, Consequence Theory says that disclosure is based upon a careful analysis of the positive and negative consequences associated with the event (Serovich, 2001). According to Norman et al. (2005), the decision to disclose hinges upon an individual's own perceptions and the local context of HIV/AIDS. Where individuals are able to enhance their current circumstances, they are more likely to disclose.

HIV Status Stress

A study investigating stigma among PLHAs in Ethiopia, Tanzania, and Zambia was conducted by Nyblade and colleagues (2003). The study found that stigma-related and discrimination-related stress impeded prevention of HIV/AIDS. In fact, it is the stress associated with acts of prejudice and discrimination that gives AIDS activists and human rights activists cause for concern.

Past stress studies have shown that it requires adaptation (Kang, 2002). Stress theory has, therefore, incorporated such moderating and buffering factors as coping resources, coping strategies, and social support (Koopman, Gore-Felton, Marouf, Butler and Gill et al. (2000)), all of which may apply to the situation of the PLHAs as they have shown to apply to the PLHAs elsewhere in the world. Whether coping with stress will, indeed, positively or negatively, influence PLHAs' appraisal of stress will depend, as it does in most cases, on the factors at play in each specific situation for each person at any given time and place. Receiving results of a test for the antibodies for human immunodeficiency virus (HIV) as well as disclosing such results especially positive results can be regarded as a stressful life event for those at risk. Individuals experience a lot of stress both before

making the decision to test and after testing while waiting for their test results as well as determining who to tell about the test result.

Research on coping behavior, as well as associations of coping with psychological distress in 172 bereaved HIV sero-positive and sero-negative gay or bisexual men concluded that an HIV sero-positive status was significantly associated with increases in distressed mood. In other words, losing a loved one due to HIV/AIDS brings the stress that the bereaved has been experiencing all along to its peak. Research on distress has also shown that stress can increase physical symptoms (Kang, 2002). Such symptoms include psychosomatic disorders which, in HIV/AIDS, can include severe pains in the joints and muscle-aches.

Some studies have shown that it is not unusual for long-term debilitation to result in stress (Nanin, 2001). Although some studies on the effects of stress, depressive symptoms, social support and status disclosure on the progression of HIV infection have found faster progression from HIV to AIDS to be associated with more cumulative stressful life events, more cumulative depressive symptoms, and less cumulative social support (Leserman, 2000), these studies did not support the view that an increase in stress and a decrease in social support significantly predicted the PLHA's progression from HIV to AIDS (Leserman, 2000).

Stress can also act as a barrier to serostatus disclosure. A French prospective, controlled randomized trial involving a group that received a counselling intervention found that the counseling intervention resulted in lowering stress and increasing the ability of PLHAs to disclose their status to chosen persons including spouses and loved ones. It also enabled them to develop self-care management skills that improved their adherence to treatment. Research sponsored by the US Centers for Disease Control and Prevention, conducted in one of three inner-city New York City hospitals, found that HIV-infected pregnant mothers who were experiencing stress were unable to follow the prescribed dosing schedule and were embarrassed or otherwise reluctant to admit this during follow up interviews for their neonate infants (Leserman, 2000) and that they were unable to disclose their status to their spouses.

A study of healthy men infected with HIV for more than 10 years found that accepting the diagnosis, but refusing to see it as a death sentence, and being able to communicate openly on subjects,

including HIV, were important factors in living along with the virus and these increase with social support. PLHAs need support in disclosing their status, balancing the goals of living long productive lives with preventing further HIV transmission (Koopman et al., 2000).

Stress and Social Support in HIV/AIDS Serostatus Disclosure

Findings from an assessment of the need for care and prevention for persons living with HIV in New Hampshire indicated that there were challenges, but also opportunities, for health care and social service providers to integrate prevention messages into health care settings (Perlmutter, Clark, Mangione, Ayotte and Kessler, 2001). According to the study, there were gaps in the way support and prevention were integrated into HIV risk reduction programs, including how social networks of PLHAs and their families were integrated into short-term and long-term counselling programmes.

A cross-sectional study, which was based on the buffering and diathesis-stress (predisposed to stress) models, sought to predict hopelessness and disclosure among a sample of 50 HIV+ mothers who were interviewed in outpatient medical clinics in Chicago. Social support was found to be pivotal in combating hopelessness and aiding disclosure among these respondents.

Past research on primary and secondary HIV prevention in the developing world has shown that social support may buffer stress (Kelly and Kalichman, 2002). However, further research is needed to specify the types and amounts of social support needed by PLHAs to buffer HIV status stress such that it would be possible for them to protect themselves and prevent primary and secondary HIV infection.

In a qualitative study that explored the care and prevention needs of persons living with HIV in New Hampshire, the participants reported turning to health care providers for informational support on reducing HIV re-infection and transmission. In Zimbabwe, results from a study by Meursing and Sibindi (2000) showed that supportive counselling for the social and emotional needs and problems of newly diagnosed seropositive patients attending public health services go beyond the pre-and-post test phase. It provided great motivation for disclosure of serostatus to spouses and initiated their spouses to tests, treatment, support and care.

A study by Coates and colleagues (2000) reported positive results from a brief intervention that combined HIV testing, sero status feedback, serostatus disclosure; risk-reduction counselling, and condom provision for individuals and sexual-partner dyads in Kenya, Tanzania, and Trinidad. The study enrolled more than 4,000 participants who were randomly assigned either to the counselling and testing intervention or to a health-education control group. After seven months, the proportion of HIV counselling and testing participants who reported unprotected intercourse with non-primary partners declined by 35%, relative to a reduction of 13% among controls (Coates et al., 2000).

The results demonstrated how combining HIV testing with counseling can be an effective strategy to increase status disclosure and adherence to HIV/AIDS treatment and prevention. This effect could partly be attributed to the ability of counselling to enhance the PLHAs' social support, which, in turn, may lead to enhanced internal health locus of control, thus enhancing the PLHA's disclosure, adherence to HIV/AIDS treatment and prevention.

Health Locus of Control and HIV Serostatus Disclosure

Locus of control is described as the way individuals see themselves as being in control of their own destiny, or being responsible for their course of actions, irrespective of whether their actions are desirable or undesirable. The concept of locus of control is an extension of, or originates from, the social cognitive theory advanced by Bandura and Walters (1963). Lefcourt (1976) argued that locus of control could be linked to such other constructs as learned helplessness (Peterson, Maier and Seligman, 1993), as used in psychiatry, or alienation, as used in sociology, and self-image or self-esteem, which are commonly used in psychology.

Health locus of control is the degree to which individuals believe that their health is controlled by internal or external factors. Whereas internal locus of control is the belief that an outcome is directly the result of one's behaviour, external locus of control is the belief that an outcome is under the control of powerful others or is determined by fate, luck, or chance. Hence, people with an internal health locus of control are not inclined to be easily influenced by the opinions of others, while people with an external health locus of

control will most likely blame outside circumstances for their mistakes, or credit their successes to chance and luck rather than to their own efforts.

Studies of locus of control (LOC) and disclosure have produced mixed findings with some studies observing no relation between the locus of control constructs and disclosure (Bane, Hughes and McElnay, 2006). However, most studies that have used the MHLC have observed significant associations between disclosure and high internal LOC.

Other research has found internal LOC to be predictive in interaction with other LOC subscales (Christiansen, Wiebe, Benotsch and Lawton, 1996). In a study of renal dialysis patients, internal LOC was found to interact with powerful others LOC and perceived health competence to predict adherence. Surprisingly, those who reported low perceived health competence, low internal LOC, and high powerful other LOC had the best adherence (Christiansen, Wiebe, Benotsch and Lawton, 1996). One of the only studies conducted concerning LOC and HIV medication adherence found that high internal LOC was one of several variables that predicted greater disclosure (Christiansen et al. 1996).

Research Questions

- What is the joint contribution of HIV/AIDS Stress, Social Support and Health Locus of Control to
- the prediction of the dependent variable – Serostatus Disclosure?
- What is the relative contribution of HIV/AIDS Stress, Social Support and Health Locus of Control
- the independent variables to the prediction of the dependent variable - Serostatus disclosure?

Methodology

Study Design

This study adopted a descriptive design aimed at determining the variables that predicted disclosure of HIV positive status among people living with HIV/AIDS.

Sampling Technique

Simple random technique was used in selecting two hundred participants who participated in this study. This was coupled with verbal expression of willingness to participate in the study.

Instruments

Four research instruments were used in the process of data collection. These include:

HIV/AIDS Self Disclosure Scale. This was developed by Kalimber (2004). It is a ten item scale used to determine the clients' ability to disclose HIV status. It has been used in previous successful studies (Corlinza and Mayor, 2005)

HIV Status Stress Scale

HIV status stress, the independent variable, was measured by the HIV Status Stress Scale, a 30-item scale. The scale covers some of the aspects included in the Coping and Stress Profile developed by Olson (1995). Olson's items cover personal, work, couple, family and home; time, health, employment, neighbourhood, and community stressors. The response options for the items composing the HIV Status Stress Scale items were: (1) Never, (2) Rarely, (3) Sometimes, (4) Usually, and (5) Always. The scale was pre-tested with 32 PLHA's in Dar-es-Salaam and its reliability coefficient was .83. Therefore, according to the pretest results, the 30-item HSS Scale was appropriate for application in the actual study. Thus the scale scores could range from 1 to 5, with higher scores indicating greater stress. The 30-item HIV Status Stress Scale had an alpha of .89.

Sources of Social Support (SOSS) Scale: The measure used to assess social support was a modified version of the Sources of Social Support

Scale developed by Koeske and Koeske (2001). The original measure was an 8-item scale that tapped information on two dimensions of social support: practical support and emotional support. The modified measure of social support obtained information on three dimensions of support: practical support, emotional support, and informational support, which was added for this study.

The modified scale measured the amount of practical, emotional, and informational support perceived to come from such categories of people as family, friends, neighbourhood solidarity groups, medical personnel, AIDS services organizations, traditional healers, and faith healers. Evidence for the reliability and construct validity of the original scale is based on data from over a dozen studies of mostly American, but also two Korean, samples (Koeske and Koeske, 2001). The scale was pre-tested with 100 PLHA's in Dar-es-Salaam and its reliability coefficient was .85.

Health Locus of Control Scale

Form C of the Multidimensional Health Locus of Control Scale (Wallston, Wallston, and DeVellis, 1978) was used to assess respondents' health-related locus of control. Form C includes items that distinguish the role of doctors from the role of others, so it was considered appropriate for measuring the locus of control of people with a diagnosis of HIV/AIDS. Form C is made up of 18 items scored on a six-point scale as follows: (1) Strongly Disagree, (2) Moderately Disagree, (3) Slightly Disagree, (4) Slightly Agree, (5) Moderately Agree, and (6) Strongly Agree. Based on previous studies, the MHLC subscales have internal consistency coefficients (Cronbach alphas) in the .60-.75 range and test-retest reliability coefficients ranging from .60-.70 (Wallston, Stein, and Smith, 1993).

Procedure for Data Administration

After securing permission from relevant authorities at the hospital, the researcher with the support of two trained research assistants administered the questionnaires on the participants. The participants who are all literate were allowed to go with the questionnaires and return on their next clinic days. This approach was however time-taking as some of the participants did not return the questionnaires on the agreed days. A constant follow up was done through phone calls

until all the questionnaires were returned. This however formed the basis for data analysis.

Method of Data Analysis

Multiple Regression Analysis and Pearson Product Moment Correlation were employed in analyzing the data collected.

Result

This section focuses on the result of the data analyzed with particular reference to the research questions of the study. Two research questions were tested at 0.05 level of significance.

Table 1: Correlation Matrix Showing the Different Correlational Levels of the Independent Variables with the HIV/AIDS Status Disclosure

Model				
Disclosure of HIV/AIDS Status	1			
HIV/AIDS stress	.283**	1		
Social support	.524**	.201**	1	
Health Locus of Control	.351**	.247**	.555*	1
Mean	32.89	13.76	29.78	29.54
Std. Dev.	7.01	3.37	8.66	9.06

The table showed that all the independent variables (HIV/AIDS Stress; Social Support and Health Locus of Control) were positively significant at predicting serostatus disclosure (.283*; .524** and .351** respectively).

Research Question 1: Joint Contribution of the Independent Variables: HIV/AIDS Stress; Social support; Health Locus of Control; on HIV/AIDS Status Disclosure

Model Summary

Table 2: Regression Analysis of Showing the Joint Effect of HIV/AIDS stress; Health Locus of Control; Social support on HIV/AIDS status disclosure

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556 ^a	.309	.299	5.8695

a. Predictors: (constant), HIV/AIDS Stress; Social Support and Health Locus of Control.

Adjusted R = 0.309

Adjusted R² = 0.299

ANOVA

Model	Sum of square	Df	Mean square	F	Sig.
Regression	3021.927	3	1007.309	29.239	.000
Residual	6752.428	196	34.451		
Total	9774.355	199			

a. Predictors: (constant), HIV/AIDS stress; Health Locus of Control; Social support.

Dependent Variable: HIV/AIDS Disclosure

It was found that the linear combination of the effect of HIV/AIDS stress; Social support; Health Locus of Control; on HIV/AIDS status disclosure was significant (F = 29.239, df = 3,196, P < 0.05). The total variation accounted for by the independent variables was .299 (30%).

Research Question 2: Relative Contribution of the Independent Variables HIV/AIDS Stress; Social Support; Health Locus of Control; on HIV/AIDS Status Disclosure

Table 3:
Table showing the relative contributions of the independent variable to the prediction of the dependent variable

Model	Unstandardized coefficients		Standardized coefficient	F	Sig.
Model	B	SE. (.β)	Beta contribution		
(Constant)	15.533	2.118		7..34	.000
Social Support	.371	.058	.459	6.405	.000
HIV/AIDS Stress	.370	.128	.178	2.900	.004
Health Locus of Control	4.052E-02	.056	.052	.724	.470

It was observed that each of the independent variables had varying contributions to the dependent variable. While HIV/AIDS Stress had ($\beta = .178$, $P < .05$), Social Support had ($\beta = .459$, $P < .05$) and Health Locus of Control ($\beta = .052$, $P > .05$). This, while HIV/AIDS Stress and Social Support were found individually significant, Health Locus of Control was not.

Summary of the Findings

The result of this study found that the linear combination of the effect of HIV/AIDS stress; Social support; Health Locus of Control; on HIV/AIDS status disclosure was significant ($F = 29.239$, $df = 3,196$, $P < 0.05$). The total variation accounted for by the independent variables was .299 (30%).

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Discussion of Findings

It is evident that disclosure of HIV test results is important to garnering social support and to accessing care and medical treatment. Disclosure

of test results can be an effective action because it can facilitate the prevention of HIV transmission to sexual partners. In this light, it is important to encourage intervention programmes that promote VCT and disclosure of test results. These programmes can be effectively promoted only if people know the factors that compel people to seek an HIV test, as well as the circumstances under which people show their test results to others. Although there are many people who voluntarily take an HIV test and who may also show the results of their test to others, no systematic studies have been carried out to thoroughly understand the dynamics that characterize the nature of disclosure. This study therefore sought to investigate the influence of HIV stress, locus of control and social support on serostatus disclosure among PLWAs.

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It was observed that each of the independent variables had varying contributions to the dependent variable. While HIV/AIDS stress had ($\beta = 178$, $P < .05$), Social support had ($\beta = .459$, $P < .05$) and Health Locus of Control ($\beta = .052$, $P > .05$). Thus, while HIV/AIDS stress and Social support were found individually significant, Health Locus of Control was not.

This finding implies that HIV stress, locus of control and social support will significantly influence the decision to disclose or not to disclose serostatus. In other words, PLWAs with bounteous reserve of social support will have reduced stress and be in good control of their health and take constructive and productive decisions. These findings confirm the finding of Zaleski, Levey-Thors and Schiaffino, (1998) study of pessimism and emotional repression in the progression of HIV-related gynecological conditions in HIV-1 seropositive black women concluded that a greater number of negative life events was associated with higher levels of progression, persistence, or repeated outbreaks in some of the conditions that were measured. According to these findings, interventions should focus heavily on exploring the mechanisms of coping with stressors, both those related and unrelated

to HIV. The negative impact of stress on people living with HIV has drawn the attention of many researchers (Nanin, 2001).

Similarly, the result also confirms the significant role of social support in enhancing serostatus disclosure among PLWAs. This also implies that PLWAs who perceive that they have good and robust network of friends, relations and other significant others will not find it difficult disclosing their serostatus. This finding is also supported by the findings of Leserman, Pekins and Evans, (1992) who concluded that social support has direct relevance to HIV/AIDS, especially in underserved populations and in underdeveloped communities where poverty undermines people's sense of mastery and control. Adaptation to stress or having a sense of coherence is dependent on multiple factors in the social world, including, among other things, relationships with other people and also with the environment (Leserman, 2000). These relationships give social support a context within which it is given and received as well as interpreted by both the person providing it and the one receiving. It is individuals with high feelings of control, who unlike those with low self-esteem, focus on active coping and on problem solving (Leserman, Pekins and Evans, 1992).

The direct effect hypothesis involves assuming that the presence of social support directly impacts the dependent, or outcome, variable, for instance disclosure of serostatus. Brashers (2002) conducted a study of 30 HIV-infected people who reported being members of an AIDS activist group. The investigation compared them to 144 other HIV-infected people who were not involved in such a group. The study results revealed that participation in AIDS activist groups made a difference in creating social and personal behavioural change. Those involved in an AIDS activist group felt more supported, so they were more likely to make action plans and/or adhere to schedules instead of engaging in wishful thinking in the hope that their problems would go away (Brashers, 2002). In addition, those who had social support from groups, compared to those who did not, showed greater awareness and use of HIV/AIDS information resources (Brashers, 2002).

In addition, other research has found internal LOC to be predictive in interaction with other LOC subscales (Christiansen, Wiebe, Benetsch and Lawton, 1996). In a study of renal dialysis patients internal LOC was found to interact with powerful others LOC and

perceived health competence to predict adherence. Surprisingly, those who reported *low* perceived health competence, *low* internal LOC, and high powerful other LOC had the best adherence (Christiansen et al., 1996). One of the only studies conducted concerning LOC and HIV medication adherence found that high internal LOC was one of several variables that predicted greater disclosure (Christiansen et al., 1996).

It is also important to conclude this discussion by stating that the variables under consideration only accounted for 30% of the prediction of the dependent variable, serostatus disclosure. This implies that other variables not considered in this study also predict disclosure. Such variables may include educational level, socioeconomic status, anxiety, emotional intelligence.etc. This realization should drive future researches.

This study's results will allow helping professionals like counsellors, social work practitioners to learn about the impact of stress, locus of control and social support on their PLHA clients and their ability to disclose their status given that HIV Status Stress has shown to negatively impact disclosure of serostatus. Therefore, HIV/AIDS treatment and prevention, practitioners should introduce programmes that aim at the alleviation of such stress, foster better social support and enhance locus of control.

Recommendations

This research is of vital use to all those that are concerned about how to encourage PLWAs to disclose their serostatus and help prevent further spread of HIV/AIDS. It is also important for the achievement of success in treatment, care and support for both the infected and the affected. In view of the findings of this study, the following recommendations are here made:

Results of this study indicate that the development of interventions targeted at fostering the emotional wellbeing of PLWAs of great significance is realistic in achievement of disclosure of positive status.

Health and other professionals should take up the challenge of helping PLWAs develop great social network especially through the establishment of support groups and other activity groups. It is also important to establish good relations in primary families as most of

them often lose their family networks as soon as they tested positive. This will help enhance their psychological wellbeing.

Most PLWAs having great challenges with stress, social support and locus of control are often the poor and the marginalized. Therefore, government at all levels and spirited individuals and groups should come to the aid of the PLWAs by supporting them with material resources and even creating special centres for their meetings.

Conclusion

Material and emotional support are only accessible if people are willing and able to disclose their HIV positive status. The challenge is therefore to create a climate within families, communities and institutions where people feel safe and encouraged to self-disclose. The aim of this research project was to understand how HIV/AIDS stress, locus of control and social support influence serostatus disclosure among people living with HIV/AIDS. In other words, where these variables are properly managed and positively fostered, no doubt, people living with HIV/AIDS would safely and confidently disclose their statuses and therefore enjoy all the benefits of serostatus disclosure.

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