

Determinants and Effects of Disclosure of HIV Sero-Status to Non-Sexual Partners among HIV Infected Adults in Winam Division, of East Kisumu District, Kenya

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Abstract: Positive diagnosis of the Human Immuno-deficiency Virus (HIV) infection in an individual causes a lot of challenges to the person and coping with the condition is only possible when the person has the psycho- social support from the relatives and people in one's social network other than the sexual partner. The selection of the study population was purposive and participants selected by use of systematic sampling on probability proportional to cluster size. The 385 subjects were interviewed by questionnaires. The data collected was analyzed by using Statistical Package for Social Sciences (SPSS) version 12 and the results presented by the use of pie charts, tables of frequency and graphs. Test of significance was done at $\alpha=0.05$. Most of the respondents were females. The mean age of the respondents was found to be 33.02 years while the modal age was found to be 30 years. Disclosure to non- sexual partners was 70.9% (n=273) among the study population and it is related to the community support given to the sick individuals. Some of the reasons for disclosure include: failing health, facilitating HIV prevention behaviour and sense of ethical responsibility. Sero-status disclosure was found to have consequences which could either be positive or negative. The results also indicated a significant relationship between disclosure of sero-status, acceptance and support in the community. The HIV infected individuals were well accepted within their families and the community though most of the respondents felt that their condition could only be known to family members and very close friends. The findings in this study will be helpful in the development of counselling tools for the HIV infected individuals by giving an in depth understanding of what makes them to talk to people in their social network about their HIV Sero-status.

Keywords: Human Immuno- deficiency Virus (HIV), Sero-status, non-sexual partners, Psycho-social support, Disclosure, Social network, HIV prevention, Sampling, Counseling, Infection.

INTRODUCTION

Within HIV testing and counseling programs, emphasis is placed on the importance of HIV status disclosure among HIV-infected clients. Through disclosure one may receive support from her family or others in her social network and may also be able to access available support services, access to medical services including antiretroviral treatment and increased opportunity to plan for the future. By adequately addressing the emotional, social, and practical sequelae of a positive status, a person may be more willing to adopt and maintain health behaviors such as cessation of breastfeeding or adherence to treatment regimens [1].

Disclosure can be defined as revealing one's status to a person outside of the health care setting. Whether or not to disclose their HIV-positive status is a difficult decision for HIV-infected individuals to make because disclosure (or non-disclosure) is often followed by major and life-changing consequences [2].

The main challenges People Living with HIV and AIDS (PLWHA) face include whether or not to disclose their HIV status, who to disclose to, and if they eventually disclose, what the consequences would be. Out of 96 PLWHA studied, 35(36.5%) of them disclosed their Sero-status to close relations and friends [3].

According to the 2006 national survey, Kenya has an overall HIV prevalence of 5.9% with the urban population having a higher prevalence of 9.6% as compared to their counterparts in the rural areas with a prevalence of 4.6%. Women were found to have higher rate of prevalence at 7.0% as compared with the males having a 4.0% infection rates while Nyanza province prevalence rate of HIV and AIDS in 2005 was 13% with Suba district having the highest rate of 32.9% followed by Kisumu 15.1%, with women having higher infection rates.

A lot of studies have been conducted to identify factors that influence disclosure to sexual partners without the consideration that other people in one's social network also form a support system that will determine the quality of life led by the HIV infected individuals in the community. It is therefore imperative that factors that would make the individual to or not to disclose the HIV status to non-sexual partners be investigated.

This study brought to light factors that influence the disclosure of the HIV status to non-sexual partners as supported by the WHO [1], that more research is needed to identify disclosure factors so that counseling tools can be developed to identify individuals least likely to disclose and counsel them accordingly. These will then be recommended as interventions that can be put into place to help in the fight against the HIV and AIDS pandemic to bring its level to a minimum.

METHODS

This was a descriptive cross sectional study that involved 28,600 HIV positive adults attending the PSCs in the division as shown in Table 1. All HIV positive adults attending PSCs who gave informed consent to be interviewed were included in the study while those who are HIV negative adults, individuals below 18 years of age and those who were not willing to give informed consent to be interviewed were excluded.

The sample size was determined using the Fisher's formula of sample size determination for a population >10000. The sampling procedure involved a combination of different sampling methods. The selection of the district, division and the study population was purposive and due to the fact that the individuals were registered in different patient support centers, the subjects were selected by the use of random sampling on probability proportional to size.

Semi structured questionnaires were administered by the interviewer to the selected subjects who gave informed consent and the information given treated with confidentiality. The data collected was entered, stored and analyzed by the use of the Statistical Package for Social Studies (SPSS version 12) and the results presented by the use of pie charts, tables of frequency and graphs. Chi-square tests were done to verify the relationship between the dependent and independent variables. Test of significance was done at $\alpha = 0.5$.

The authority to conduct the research was sought from Maseno University Research Board. At the local level, the District Medical officer of health and the district commissioner were informed and permission to conduct the study sought before the commencement of the study.

Table-1: Distribution of patients in PSCs

PSC No.	NAME OF FACILITY	No. OF PATIENTS	SAMPLE
1	KISUMU DISTRICT HOSP.PSC	5347	72
2	ST.MONICA PSC	3287	44
3	NYANZA PGH PSC	12700	171
4	KODIAGA PSC	857	12
5	PORT FLORENCE PSC	133	2
6	PHASES LUMUMBA/KEMRI CDC PSC	5478	74
7	FPAK PSC	246	3
8	TUUNGANE PSC	423	6
9	PAND PIERI PSC	99	1
10	TOTAL	28600	385

RESULTS

The study involved 385 respondents aged 18 to 71 years and the majority, 297 (77.2%) were aged between 28 to 47 years old. The mean age was 32.7 years and modal age was 28 to 37 year as shown in Table 2. There were more female respondents, 240 (62%) as compared to males 145 (38%) thus indicating that women are more infected by HIV in this study population.

About half of the respondents, 186 (48.3%) were married followed by the singles, 92 (23.9%) and

90 (23.4%) widowed as highlighted in Figure 3. Only a few were either separated, 11 (2.9%), or divorced, 6 (1.6%). In terms of occupation, 194 (50.4%) were involved in small scale businesses, 74 (19.2%) were salaried, 59 (15.3%) were involved in farming activities. The rest, 58 (15.1%) were involved in other activities which included: commercial sex work, domestic work, fishing and building among others. More than half of the respondents, 197 (51.17%), had primary education, followed by those who had secondary education.

Majority of the respondents, 274 (71.2%) had three meals per day, 71 (18.4%) had two, 27 (7 %) had four and 5 (1.3 %) had five meals a day. The approximate expenditure of the respondents was categorized, the frequency and the percentages given as shown in the Table 4. The mean expenditure was Ksh 246.21 while modal expenditure category was Ksh 101 to Ksh 200.

The results showed that occupation ($\chi^2= 5.941$, $df=3$, $p=0.115$), level of education ($\chi^2=2.918$, $df =4$, $p=0.572$) and number of meals ($\chi^2=4.893$, $df=4$, $p=0.298$) had no significant relationship with the disclosure of the HIV status to a non-sexual partner, at 95% test level and $p=0.025$, 2 sided.

The results showed a significant relationship between disclosure and the expenditure on daily needs ($\chi^2= 28.478$, $df = 6$ and $p = 0.000$) when the test level is at 95% and $p=0.025$, 2 sided. A bigger proportion, 263 (68.31%) whose daily expenditure ranges between Ksh 0-500 had disclosed while only 10 (2.6%) of those who had a daily expenditure of above Ksh 500 had disclosed their status to their non-sexual partners.

Majority of the respondents, 158 (41%) had taken less than one year since they knew their status to the time of their disclosure, 143 (37.1%) between one to two years, 42 (10.9%) between two to three years and the same percentage for three years and above. The mean number of years taken from the time of knowing the status to disclosure was found to be 1.917 years and 273 (70.9%) had disclosed their status to people other than their sexual partners while 112 (29.1%) had not.

Of the population that disclosed, 164 (60.1%) did so immediately, 45 (16.5%) within one month, 36 (13.2%) within six months, 18 (6.6%) within one year while the rest, 10 (3.6%) after one year. The duration taken after knowing one's status and disclosure were found to have a significant relationship (Pearson Chi-Square value of 21.831, $df= 3$ and $p=0.000$ at 95% confidence level, $p=0.025$, 2 sided). The product moment correlation (r) value was found to be -0.227 indicating a negative relationship between the two variables as evident from the results where 263 (96.34%) disclosed within one year after knowing their status while 10 (3.66%) disclosed after one year. This can be attributed to the fact that the infected individuals felt free to talk about their status immediately after knowing that they are infected but found it hard to talk about it later.

The reasons for disclosure include: failing health of the respondents, 163 (59.7%), minimizing stress associated with non-disclosure, 94 (34.4%), facilitating prevention behavior, 36 (13.2%) and sense of ethical responsibility, 20 (7.3%). Other reasons

include economic support, educating others on HIV, engagement in casual talk about health and overcoming fear. However, no respondent disclosed their status for the purpose of social support as shown in Figure 5.

One hundred and thirty one (52%) of the respondents disclosed to their brothers, 120 (44%) to mothers, 110 (40.3%) to sisters, 62 (22.7%) to fathers, 107 (39.2%) to friends, 37 (13.6%) to support groups and 50 (18.3%) to others like the aunts, mother in-laws, uncle, children, sister in-laws, cousins, social workers and nieces however, 112 (29.09%) respondents, who did not disclose their status to other people, had different perceptions of the outcome of disclosure and 33 (29.2%) perceived disruption of their family relationships, 30(26.8%) discrimination, 27 (23.9%) fear for the unknown, 7 (6.2%) verbal abuse, 7 (6.2%) supportive response, 3(2.7%) physical violence, 2 (1.8%) divorce and the rest 38 (33.6%) other reactions like gossip, shock to their relatives who are close them, shame while other respondents reported that they had not decided to disclose or saw no need in disclosing since they viewed that HIV status is personal and need not to be shared.

There were a number of actual outcomes associated with the revelation of one's HIV status and majority of the respondents (93%) experienced supportive response upon disclosure of their status. This was followed by discrimination that accounted for 26.8% and physical violence featured least in the outcome by consisting of a paltry 1.1% as illustrated in Figure 6. This outcome can be attributed to the general knowledge of the study population on the mode of transmission and the prognosis of HIV and AIDS

Of the 385 respondents who were sampled, 69(17%) were received very well by the community, 281(73%) well, 19 (4.9%) poorly while 16 (4.2%) reported not to have been accepted within the community though the acceptance was reported to be well in most cases due to the fact that community was not informed of the HIV status of respondent. Chi-square test demonstrated a significant relationship between disclosure and acceptance in the community (Chi -square value =27.99, $df=3$, $p=0.000$ at 95% Confidence level and $P= 0.025$ two sided). Of the 281 (72.99%) who were well accepted, 195 (69.40%) had disclosed their status while 86 (30.6%) had not disclosed and the same higher percentages were also found in the group that was very well accepted in the community such that 63 (91.3%) had disclosed while only 6 (8.7%) had not disclosed. These results indicate a very receptive community that is informed about HIV and AIDS.

The family members, other than the sexual partners of the HIV infected individuals were reported

to be supportive to 236 (61.3%) of the respondents while 149 (38.7%) did not get any.

However, Chi-square test also showed a significant relationship between disclosure and support from the family members (Chi-square value=120.54, df=1 and p =0.000 at 95 % confidence level and P=

0.025, 2 sided), thus one will be driven to disclose his or her HIV status because of the need of the support from the family members. The kinds of support that came out strongly to be accorded to the sick individuals included material (which in most cases was in form of food and financial) and moral support.

Table-2: Ages of the respondents

Age(years)	Frequency	Valid Percent
1 8-27	17	4.4
28-37	170	44.2
38-47	127	33
48-57	53	13.8
58-68	14	3.6
above 68	4	1
Total	385	100

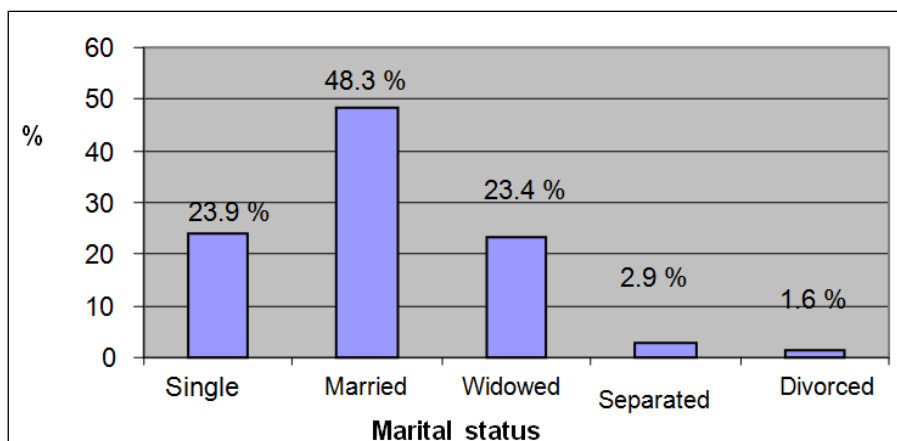


Fig-3: Marital Status

Table-4: Daily Expenditure of the Respondents

Expenditure(Ksh)	Frequency	Percent
0-100	92	23.9
101-200	151	39.2
201-300	74	19.2
301-400	20	5.2
401-500	32	8.3
501-1000	13	3.4
above 1000	3	0.8
Total	385	100.0

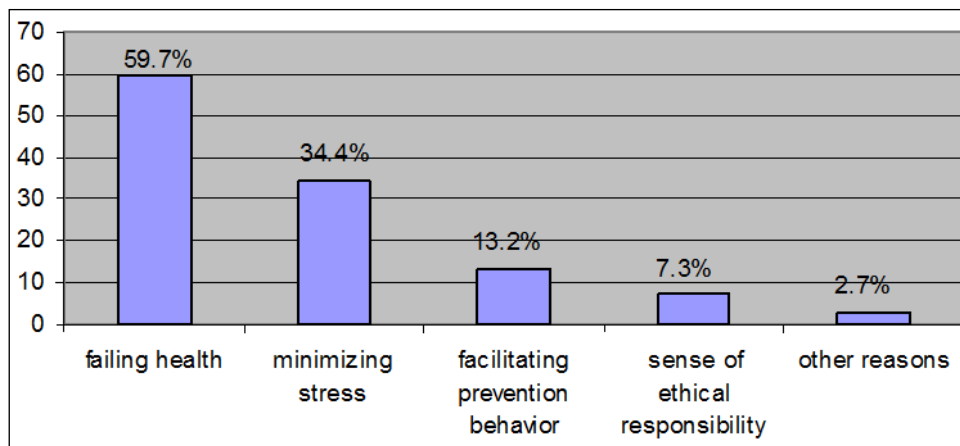


Fig-5: Reasons for Disclosure

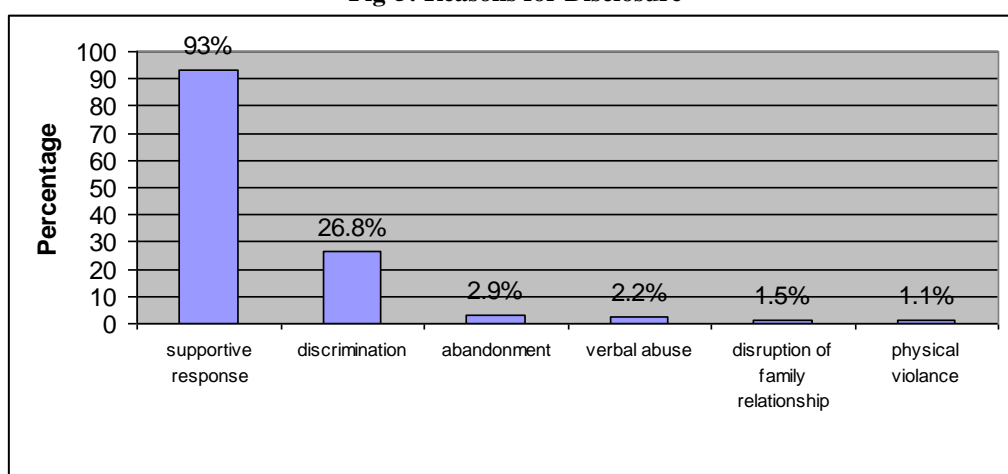


Fig- 6: Outcome of Disclosure

DISCUSSION

The study involved 385 respondents who were mainly of ages between 28 to 47 years old. The majority, 240 (62%), of the respondents were females. Of the total numbers of subjects, 186 (48%) were married while the least in this category were divorced and comprised of 6 (1.6%). The result in this study showing that the married couples are more at risk of getting HIV infection is supported by Biomndo [4], who reported that two thirds of Kenyan adults infected with HIV are currently in marital union.

The data derived from the socio- economic factors revealed that disclosure to non-sexual partners was not dependent on occupation, level of education and number of meals per day. However there was a significant relationship between disclosure and the expenditure on daily needs. This can be attributed to the fact that the population is poor as shown above in Table 4.2 where 234 (63.1%) had daily expenditure of up to Ksh 200 thus the need to rely on family members for material support. Moreover, findings from an earlier comparable study carried out by the WHO [5] indicated that poverty influences the disease presentation and quality of care thus when the resources at hand are

constrained, health seeking behavior may be compromised with delay resulting into early clinical presentation of the condition hence for the subjects to achieve better healthcare services and nutrition there is need to share this information with the people in one's social network for economic support.

Disclosure of one's HIV status has consequences that may be either positive or negative depending on who the infected person is disclosing to. Most of the respondents, 254 (93%) got supportive response while only 73 (26.8%) faced discrimination and only 4 (1.5%) had disruption of their family relationships. This shows a population that is receptive of those infected by HIV and this can be attributed to the information that the community has regarding the condition leading to only a few feeling discriminated. The results in this study are contrary to an Indian research that documented social reactions to people with AIDS to be overwhelmingly negative [6]. A hostility index developed in the same study revealed that almost 90 per cent of respondents harbored at least one hostile view, and more than half held three or more such views while in this study there was a good supportive response upon disclosure. The contrast in

these two results can be attributed to the fact that most individuals in this study disclosed to their family members whom they felt free to talk to about their status. Compounded to this is the level of awareness about HIV and AIDS by the people who were recipients of the disclosure news.

Disclosure to facilitate HIV prevention behavior was 36 (3.2 %) and this was to either influence the recipients to go for testing, educating the recipient on HIV and AIDS and encouragement of the recipient that their condition was not unique since others also had the same condition. This gives possibility of using the HIV infected individuals as advocates for behavior change. Of all the prisoners who were interviewed, the percentage disclosure was 100% and all came to learn of their HIV status in prison. The prisoners cited nutritional privileges and light work as the drive to disclosure.

Negative responses and attitudes towards PLWHA are strongly linked to general levels of knowledge about HIV and AIDS regarding the causes of AIDS and routes of HIV transmission [7], and from this, a deduction can be made that the community has good knowledge about HIV and AIDS

In terms of acceptance of the HIV and AIDS patients by their family members and the community, Chi-Square test revealed a significant relationship between disclosure and acceptance though the acceptance by the community was perceived to be good by the infected individuals and this was attributed to the fact that in most cases the community was not informed of the HIV status of the person in question and in most cases the respondents feared of discrimination by being known to be infected by the virus. However, some of the respondents reported that their community received them well even though they knew of their status. This concurs with a study by Nebie and Meda [8], which reported that there is a variation in the manner in which the HIV infected individuals are accepted in the community depending on the different settings they come from. On the side of the family members, most of the respondents who disclosed reported supportive response either in economic terms or moral support and were well accepted by the family members.

The acceptance and the positive outcome of disclosure will also determine the quality of care that can be given to the infected individual at the advanced stages of the disease. This calls for the need of the palliative care that is very necessary in chronic diseases like HIV since it affirms life and provides a support system to the family during the patient's illness [1].

This study showed that there is a significant relationship between disclosure of one's HIV status and the community support with a positive association

(Correlation coefficient (r) = 0.293). The respondents were more likely to disclose only if they expected support from both the community and the family members. This was supported when some of the respondents reported that they did not see any need to disclose since the community is not concerned and equally trapped in poverty. This is so because the kind of support to be accorded will only be availed to the person in question if the community knows of the HIV status of the individual though this is pegged on the economic potential of the community from which the individual comes from and the willingness of the members of the community to give the required support.

Significant relationship was also found between disclosure and support from non-sexual members of the family. The psycho-social support reported to be received by the HIV infected individuals included moral, spiritual, visitation, material, health education, home based care, help in seeking health care services and nutritional privileges (for prisoners). A study conducted by the UNAIDS [9], indicated that seeking social support is the main reason for disclosure to friends and family members and by disclosing, the HIV positive individuals can benefit from love, support and advise of people they trust thus the results in this study show an agreement to this fact.

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