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The Influence of Gender Related Factors on Access to Antiretroviral Therapy in Nairobi, Kenya

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The study was designed to investigate the influence of gender related factors on access to antiretroviral therapy. The results showed that the number of females visiting antiretroviral therapy clinics was twice that of males and in the 18-26 years age bracket, females were three times more affected by HIV/AIDS than males. The married carried a 5-fold risk of carrying the AIDS virus while women were twice as likely to be infected by their husbands as compared to men getting the virus from their wives. The findings indicate that the lower the formal education, the higher the chances of contracting the virus. The findings suggest men had a significant advantage over women on access to antiretrovirals. The clinic schedules precluded about 10% of the patients from access. Social stigma was low (about 10%) within spouses, and very high (about 90%) outside the institution of marriage. Women bore the larger burden of the stigma. In addition, the results suggest that gender segregated clinics would have no influence on the number of patients attending the clinics.

Key words: Gender, access, antiretroviral therapy, HIV/AIDS.

INTRODUCTION

Kenya's national gender based HIV/AIDS prevalence is 3.5 percent for males and 6.7 percent for females. Nairobi has a gender based prevalence of 8.0 percent for males and 12.3 percent for females [1 - 5]. There is little published information disaggregated by gender, age or socio-economic status to indicate who is accessing antiretroviral therapy services in resource limited settings. However, data available elsewhere suggests that access to ART services is often most common amongst educated men living in urban areas. Literature suggests that poor women appear to be at a disadvantage in accessing HIV/AIDS treatment. Furthermore, there are some groups of women who appear excluded from mainstream HIV/AIDS services, such as commercial sex workers, intravenous drug abusers, HIV positive women who are pregnant or have children [6-9]. Addressing the role of gender in HIV/AIDS and education, Palomo [10-12] identifies the unequal gender relations as a factor that is influencing the spread of the epidemic. In this regard, women and girls are at higher risk of contracting the virus because of their vulnerability due to biological, economical and social-cultural factors. Where there are direct costs for ART services, both poor women and men have limited ability to access the services. Where a household has only sufficient resources for one member to receive ART services, it will usually be the male head who takes priority. Where women have some independent access to financial resources, they may forego food or other essentials to pay for health care, or alternatively not seek health care. Where women care for children, they will often consider providing for the child before their own health care needs. Even if treatment is free, other indirect costs that are incurred can prevent women's access to treatment. Besides these financial constraints, many women's' domestic responsibilities make it difficult for them to leave their homes and families to travel to a clinic.

In finding out the influence of gender related factors (GRFs) on access to ART amongst People Living With HIV/AIDS (PLWHAs) in Nairobi, the present study was aimed at determining the role of patients' socio-demographic characteristics in access to ART; to establish the influence imposed by socio-economic status of a patient on access to ART

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and investigating the influence of socio-cultural factors on access to ART.

METHODOLOGY

Research design. This study employed a descriptive cross-sectional design and was conducted in selected resource constrained sites in Nairobi, in the period October–December 2007. The study population comprised of male and female patients living with HIV/AIDS, who were accessing treatment and care within the boundaries of the city of Nairobi as per the zoning pattern of National AIDS/STD Control's ART program. To qualify for inclusion in this study, patients had to be over 18 years of age, HIV-positive and enrolled in a formal health program within Nairobi.

Variables. The gender related factors that constituted the independent variables in this study were classified into three broad categories; socio-demographic, socio-economic and socio-cultural factors. These are factors known to take different values within the same gender, and also vary across the gender. The parameters of the study were; Sex, age, marital status, undergoing ARV treatment, level of education, residence, method by which the virus was contracted, physical access, nature of marriage, awareness of social support groups, decision making process, social stigma and preference for gender segregated clinics.

Clearance for the study was sought from the Department of Public Health, Kenyatta University, Nairobi City Council, (Public Health Department) and Nairobi's Provincial Medical Officer.

Sample size and sampling: By end of 2006, Nairobi's overall population, extrapolated from the 1999 census was approximately 3 million, with a HIV/AIDS infected population of 197,000 [13-16]. The sample size was determined using the sample size determination formula [17] as follows:

$$n = \frac{Z^2 pq}{d^2}$$

where, n = the desired sample size (if target population is >10,000), Z is the standard normal deviation at the required standard level, p is the proportion estimated to have the characteristics being measured, q=1-P and d is the level of statistical significance set.

Hence, a minimum of 100 PLWHA's were to be selected for inclusion into the study through a multistage sampling approach which involved random, proportionate to size sampling technique. During the actual study, 255 PLWHA's were investigated. The number of patients interviewed by site and gender is shown in Table 1.

A structured questionnaire was formulated intended to measure the various gender related factors. Completed questionnaires were subjected to data cleaning, coding and analysis using SPSS software (Version10) (SPSS Inc. Chicago, Illinois, USA).

Table 1: Patients interviewed by site and gender

Name of ART Centre	Male	Female	Total
Mathare North Health Centre	9	26	35
Dandora Health Centre	13	40	53
Special Treatment Clinic (STC Casino)	8	11	19
Westlands Health Centre	4	11	15
Lang'ata/Kibera Health Centre	18	31	49
Kangemi Health centre	19	47	66
Kariobangi Health Centre	2	3	5
Jamaa Maternity Hospital	4	9	13
Total	**77**	**178**	**255**

RESULTS AND DISCUSSION

Distribution of study population by sex: Out of the 255 patients who took part in the study, 77 (30.2%) were men and 178 (69.8%) were women. Health workers in the health centres attributed the higher number of women attending clinic to the fact that men attend to paid work and often don't get permission from their workplace to visit the clinic. Whereas this finding is not conclusive, such a trend in a Southern African study was associated to routine screening of women as part of their antenatal care. This suggests that more women are diagnosed earlier than men and making their numbers in ART clinics high.

Age profile of the study population: The study sought to establish out the age profile of the sample population. From the results, the 26-33 years age group had the highest number followed by the 34-41 years age group with 80 (31.3%) and 77 (30.2%) of the respondents, respectively (Table 2). The two age groups constituted of respondents whose ages ranged 26-41, N=157 (61.5%). The finding closely agrees with the UNAIDS report that shows the 25-39 years age group as the most affected by the HIV/AIDS globally. It will be noted that there were very few patients older than 50 years and none of them was female. This finding is consistent with that of Muula *et al*. [18], who noted that older women tend to be less likely to access care and treatment services as a result of greater social stigma and neglect.

Distribution of study population by marital status: This study sought to find out how HIV/AIDS patients are distributed according to marital status. There were 161 (63.2%) people who were currently married constituting the largest group of the married. The widowed/separated/divorced status was composed of persons who were once married. Hence combining the current and past states of marriage, 213 people (83.6%) fall in the married category. The overall number of the unmarried was 42 (16.4%). This suggests that the state of marriage makes one about five times likely to access ART. This finding agrees closely with a Thailand study [19-22] which noted that marriage and long term relationships do not protect women from infection with HIV/AIDS.

Table 2: Age profile of the study population

Age group	Male		Female		Total	
18-25	10	(13.0)	34	(19.1)	44	(17.3)
26-33	20	(25.9)	60	(33.7)	80	(31.3)
34-41	21	(27.3)	56	(31.5)	77	(30.2)
42-49	24	(31.2)	28	(15.7)	52	(20.4)
Older than 50	2	(2.6)	0	(0)	2	(0.8)
Total	**77**		**178**		**255**	**(100)**

Figures in parentheses represent percentages

Table 3: Distribution of study population by marital status

Marital status	Male		Female		Total	
Single	11	(4.3)	31	(12.1)	42	(16.4)
Married	50	(19.6)	111	(43.5)	161	(63.2)
Divorced/separated	7	(2.7)	14	(5.4)	21	(8.2)
Widowed	9	(3.5)	22	(8.6)	31	1(2.2)
Total	**77**		**178**		**255**	(100)

Figures in parentheses represent percentages

Table 4: Distribution of study population by education level

Highest Level of Education achieved	Male		Female		Total
Never went to school	1	(0.4	10	(3.9)	11
Primary school	36	(14.1)	83	(32.5)	119
High school (O Level)	34	(13.3)	70	(27.5)	104
Middle level college education	4	(1.5)	10	(3.9)	14
University education	2	(0.7)	5	(1.9)	7
Total	**77**	**(30.2)**	**178**	**(69.8)**	**255**

Figures in parentheses represent percentages

Number of patients on ARVs: A total of 174 patients were on ARVs. This number comprised of 54 men and 120 women (ratio 1:2.2). These findings were consistent with a study conducted in South Africa where the ratio was 1:2.3 [6]. The National ART Guidelines [23-26] indicate that a patient must have a CD_4 count of 200 and below to qualify for the ARVs. Patients with a CD4 count above 200 are managed for opportunistic infections and related complications. For this reason some of the patients interviewed were not on ARVs. Nevertheless, all the patients were asked to state whether they were taking ARVs. The findings are consistent with those of (Muula *et al*.[18]) who reported that there were more women on ARVs than men in a South African study, a fact easily explained by the larger numbers of PLWHA's who are women. However, viewed from within the genders, the findings suggest men have an advantage over women on access to ARVs. Among the men, 70.1% were on ARVs compared to 67.4% among the women. Some of thepatients not taking ARVs, did not know why the drugs were not prescribed to them, an indication that they were not well informed on their condition and how it is managed.

Education profile of the patients: Overall, 125 (49.0%) respondents had at least high school education. Notably, this educational achievement was not equally distributed within the genders as shown in table 4. This implies that the lower the education level, the higher the chances of being infected, which was reflected in the higher numbers seeking ART services. Hence, education becomes a gender related factor that influences access to ART.

Residential profile of the patients: The results show that about a quarter of the clients came from outside the vicinity of ART centres. In fact some patients revealed that they preferred distant ART centres to reduce chances of being spotted by somebody known to them. Thus, the problem of stigma and denial are still rampant among the patients. Nevertheless, the findings underscore the importance of bringing services close to where people live. The results obtained showed that men are more fearful of stigma than women.

Mode of Infection: With respect to transmission, a large proportion of the PLWHA's (80.9%) said that they had contracted the virus sexually. More specifically, 45.5% had contracted through sex with their spouses, 35.4% with friends (Table 5). It will be noted that among men the number who were infected by their wives was 17 (22%) while for women the number who were infected by their husbands was 99 (55.2%). Thus there is more than double likelihood for men to infect their wives with the HIV as do women to their husbands. This is further supported by the fact that men engage in casual sex more often than women, as forty five men (58.4%) of the men interviewed contracted the disease through casual sex compared to 45 women (25.2%) who got infected extramaritally. A Cambodian study [19] showed that 13% of urban men and 10% of rural men engaged in extramarital sex and a study by the same body in Thailand showed that about 75 % of HIV-positive women were likely to have been infected by their husbands. The findings of this study are in close agreement with the UNAIDS report on HIV/AIDS epidemic.

Scale-up of access to ARVs: About 32.9% felt that there was inadequate awareness on the existence of ART clinics. Another 23% of the respondents were of the opinion that the ARVs should be brought close to where they live: in private clinics, pharmacies and through a mobile ART service as well as through more intensified home visits by health personnel.

Marital status: The states of marriage were categorised as monogamy, polygamy, widowed/separated and unmarried. More than half of the respondents 142 (55.6%) were in monogamous relationships (Table 6). The unmarried within the study group were 89 (34.9%), but the proportion of unmarried among the women was higher, 66 (37.0%) than among men 23 (29.8%). The findings suggest a higher risk of contracting the virus in marriage, than in the single status. The findings agree with UNAIDS report (2004) which noted that 75% of women were likely to have been infected by their husbands, and that the state of marriage offers no protection against the virus.

Out of the 255 respondents, 157 (61.6%) PLWHA's did not belong to any support group. Only 98 (38.4%) belonged to such a group. Twenty nine men and 69 women belonged to a support group. It was noted that a large number of PLWHA's were not comfortable mixing with the opposite sex in the support groups. This problem could be addressed by establishing same sex groups.

Decision to seek ART services: The patients were asked to state how they arrived at the decision to visit the ART clinic. The results obtained show that own decision making in this regard is strong among women 109 (61.2%), than men 24 (31.2%) (Table 7). In similar study conducted in Uganda shoed that men once infected stay longer in denial than women [11]. A possible reason for this is that many women are forced to open up to discussions on HIV//AIDS with their partners particularly because of the need to get financial assistance and also permission to attend the clinic. The Uganda study underlined gender differences as a denominator in access to ART. However the results of the present study yield similar results possibly because a big number of the women respondents were not married.

Table 5: Method by which the AIDS virus was contracted

Method by which the AIDS virus was contracted	Male		Female		Total	
Sex with spouse	17	(6.7)	99	(38.8)	116	(45.5)
Sex with a friend	45	(17.6)	45	(17.6)	90	(35.4)
Sexual assault/rape	0	(0)	2	(0.8)	2	(0.8)
Blood Transfusion	2	(0.8)	4	(1.7)	6	(2.4)
Don't Know	13	(5.0)	28	(11)	41	(15.9)
Total	**77**		**178**		**255**	**100**

Figures in parentheses represent percentages

Table 6: Nature of marriage

Nature of marriage	Male		Female		Total %	
Monogamy	47	(18.4)	95	(37.2)	142	(55.6)
Polygamy/Inherited spouse	3	(1.2)	6	(2.4)	9	(3.6)
Widowed/Separated	4	(1.6)	11	(4.3)	15	(5.9)
Unmarried	23	(9.0)	66	(25.9)	89	(34.9)
Total	**77**		**178**		**255**	100

Figures in parentheses represent percentages

Table 7: Decision to seek ART services

Decision making	Male		Female	
Own decision	24	(31.2)	109	(61.2)
Prevailed upon by spouse	24	(31.2)	4	(2.2)
Advised by the doctor	8	(10.4)	22	(12.5)
Advised by relatives	12	(15.6)	24	(13.5)
Prevailed by friends	4	(5.2)	4	(2.2)
No Response	5	(6.4)	15	(8.4)
Total	**77**	**(100)**	**178**	**(100)**

Figures in parentheses represent percentages

Table 8: Person with whom the status has been discussed

Person with whom the status has been discussed	Within men	Within women	Totals
Spouse	47 (94%)	95 (94%)	142
Siblings	18 (23.4%)	54 (30.3%)	72
Fellow worshipers	6 (7.7%)	5 (2.8%)	11
Workmates/colleagues	2 (2.3%)	8 (4.5%)	10
Neighbors	4 (5.2%)	16 (18.9%)	20
Total	**77**	**178**	**255**

Figures in parentheses represent percentages

Impact of stigma: Stigma is a major social obstacle against access to health services for certain chronic diseases and conditions like HIV/AIDS. To measure the degree of stigma experienced by the respondents, they were asked to state whom they have discussed matters pertaining to their status with. Among the married men, 47 (94%) had shared their HIV status with their spouses while 95 (94%) of the married women had also shared their status with their husbands. This shows that there is little secrecy and high level sharing of information amongst married people (Table 8).

Eighteen respondents had discussed their HIV status with their siblings while 54 (30.3%) women had done the same. The number of men who discussed their status with colleagues/workmates was 2 (2.3%) while for women it was 8 (4.5%). Workmates and colleagues came out as an unpopular group to discuss confidential matters that carry stigma.

Gender segregated ART clinics: Overall, a higher proportion (79.2%) of the respondents did not have gender preference for clinic attendance. Only 5 (1.9%) had strong preference for gender segregated clinics, while strong dislike was reported by 48 (18.8%) of the respondents. Within the genders, the pattern of preferences was similar as with the overall majority. The results suggest that there will be no gain for greater access to the services for either gender by setting up gender segregated ART clinics.

CONCLUSION

The social demographic profile of the study findings indicates that women are disproportionately affected by the scourge more than men. There is need, therefore, to mount gender specific program targeting women because of their unique vulnerability to HIV/AIDS. Some patients are not able to visit the clinics because they have to attend to paid work. It is recommended that the Ministry of Health makes adjustments to its ART service planning so as to offer evening, weekend and public holiday clinics, with a view of serving PLWHA's who work during the weekdays.

More intensive and sustainable campaigns are still needed to reduce the stigma among the PLWAS. The public requires to be educated

more on HIV/AIDS in order to know of the minor methods of the viral transmission.

The results of this study indicate that GRF's have an influence on access to ART. It is therefore suggested that gender mainstreaming continue to be a paramount consideration in planning ART service delivery, with a view of making up for disadvantages in either of the genders.

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