

Article

Attitudes and sexual behaviours of unmarried people with HIV/AIDS living in the Niger Delta region of Nigeria

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ABSTRACT

Background Increasing morbidity and mortality associated with HIV/AIDS may be attributable to the lifestyle of individuals. Appropriate sexual behaviour and lifestyle modification may be helpful strategies for prevention and control of HIV/AIDS in many countries.

Aim The study was designed to assess the impact of attitudes and sexual behaviour on control of HIV/AIDS among unmarried people living with HIV/AIDS in Uyo, a community in the Niger Delta region of Nigeria.

Method A total of 365 unmarried individuals living with HIV/AIDS were assessed at the HIV clinic of the University of Uyo Teaching Hospital. Attitudes and sexual behaviour were evaluated using the Attitude and Sexual Behaviour Questionnaire adapted from previous studies.

Results Of the 365 individuals living with HIV/AIDS, 142 (38.9%) were male and 223 (61.1%) were female. The majority of the subjects were below 50 years of age. The mean ages (\pm SD) of men and women were 36.8 ± 3.9 and 29.2 ± 1.7 years, respectively. Sexual attitudes and behaviours were variable. There was no change in the partner's reaction to sex for 28.9% of men and 27.8% of women, abstinence in 7.7% of men and

8.1% of women, and breakdown of the relationship with the partner for 4.9% of men and 7.2% of women. More women than men agreed to undergo testing after their partners had tested positive for HIV. Sexual activity was higher in women than men, with 4.9% of men and 10.3% of women reporting daily sexual intercourse, 16.2% of men and 15.7% of women reporting weekly intercourse, and occasional sexual intercourse being reported by 44.4% of both men and women. After testing positive, 58.4% of male partners and 56.9% of female partners were persuaded to use condoms during sexual intercourse.

Conclusion This study has demonstrated unhealthy attitudes and sexual behaviour among individuals living with HIV/AIDS in the Niger Delta region of Nigeria. This can potentially limit efforts and investment in controlling HIV/AIDS in this region. Therefore there is a need to initiate concrete policies and programmes that would encourage people living with HIV/AIDS in the Niger Delta region to adopt a healthy lifestyle.

Keywords: behaviour, HIV/AIDS, Nigeria, sexual attitudes, unmarried people

Introduction

HIV/AIDS is widely recognised as one of the most common causes of disease burden globally.¹ The numbers of people dying from this disease vary greatly from one country to another. The continued increase in prevalence of HIV/AIDS in many developing countries suggests that lifestyle modification has not been given adequate attention. Although evidence suggests that morbidity and mortality from HIV/AIDS have significantly decreased in the last few years, the disease is still a major problem in developing countries.² This is because more people living with HIV/AIDS are becoming ill. This calls for an effort aimed at improving quality of life, which is a major challenge facing people who are living with HIV/AIDS. Despite the increasing evidence attributing the upsurge of HIV/AIDS in developing countries to ignorance and high poverty levels,¹ sexual behaviour and attitudes remain important factors contributing to the widespread transmission of the disease. Unfortunately, the impact of lifestyle on the prevention and control of HIV/AIDS is often ignored. Much greater attention needs to be given to the sexual behaviour and attitudes of people living with HIV/AIDS, if efforts aimed at addressing the upsurge of HIV/AIDS are to yield positive results. This is because sexual attitudes and behaviours have been found to be responsible for the increased incidence of HIV/AIDS and other sexually transmitted infections.³

HIV/AIDS is still a significant cause of morbidity and mortality worldwide.⁴ The consequences are enormous, especially in those countries that are least able to implement meaningful strategies for its control. As HIV/AIDS affects both individuals and families, the vast majority of whom are at their peak age of productivity, it has widespread implications for many countries with regard to human development and economic and national growth.^{5,6} In Nigeria, the impact on healthcare delivery is overwhelming, judging from the depreciating standard of living and healthcare facility development and services. The adjustment to life of individuals who have the disease is a major concern, due to the limited social support that is available to allow a better quality of life.

Although several factors have been reported to be responsible for the increased incidence of HIV/AIDS in developing countries, one major factor in Nigeria has been the increasing pressure caused by myriad socio-economic difficulties.⁷⁻⁹ This has resulted in the weakening of traditional structures and instruments of social control. Consequently, a growing number of individuals tend to engage in behaviours that include prostitution and commercial sex. It is

widely documented that HIV/AIDS largely results from unprotected heterosexual intercourse,¹⁰ which is known to be the commonest route of HIV infection.^{11,12} Unsafe sexual practices and unwillingness on the part of individuals to avail themselves of voluntary counselling and testing (VCT) are some of the major factors that affect its control. Furthermore, a culture that encourages the dominance of men and prevents women from making decisions about sexual matters is also known to contribute to unsafe sexual practices.^{13,14} The increased incidence of HIV/AIDS and other sexually transmitted infections is widespread in an environment such as the Niger Delta region, where women are often exposed to abuse if they do not consent to sex, and are deprived of their basic rights to negotiate the use of preventive measures during sexual intercourse.¹⁵

It is estimated that around 5.4% of Nigerians are living with HIV/AIDS.¹⁶ Therefore, for a national population of over 150 million people, about 5 million Nigerians are estimated to be affected annually, and more than half of these are living in the Niger Delta region. With the recent upsurge in kidnapping, rape and prostitution in the region, the impact of HIV/AIDS could be overwhelming, given that these activities are often being perpetrated under the influence of dependency-forming substances. The aim of this study was therefore to assess the sexual attitudes and behaviour of unmarried people living with HIV/AIDS in Uyo, a community in the Niger Delta region of Nigeria. It is hoped that the findings will help to inform large-scale campaigns aimed at increasing awareness of the need for attitudinal change among individuals living with HIV/AIDS in the region.

Materials and methods

Location of the study

The study was conducted at the University of Uyo Teaching Hospital in Uyo, a community in the Niger Delta region of Nigeria. This 300-bed hospital was established in 1996 and is situated on the outskirts of Uyo, which is the capital of Akwa Ibom State, one of the major oil-producing states in the Niger Delta region. The hospital is the only tertiary health institution serving about 3.9 million people in Akwa Ibom State and its neighbouring states of Abia, Cross River and Rivers. Recently it has been designated as one of the primary centres in the country for the management of people living with HIV/AIDS.

Participants

The participants consisted of 365 unmarried individuals living with HIV/AIDS. The sample size was determined using 5% HIV/AIDS prevalence in Nigeria, with a 3% sample error. To allow for attrition, a total of 365 unmarried individuals who had tested positive for HIV at the clinic were recruited to the study. The participants were all drawn from the population of the area. There were no significant differences in the sociodemographic characteristics of the participants with regard to education and employment status. The inclusion criteria were being unmarried and having tested HIV positive.

Data collection

A total of 365 unmarried individuals who had tested positive for HIV were assessed in the HIV clinic of the University of Uyo Teaching Hospital, and their attitudes and sexual behaviours were evaluated using the Attitude and Sexual Behaviour Questionnaire adapted from previous studies.¹⁷ All of the participants completed the questionnaire after their consent had been obtained. Those with little or no education were helped to complete the questionnaire. The questionnaire contained questions that asked about sexual relationships with partners, sexual preferences, the number of sexual partners, use of condoms, sexual activity after testing positive for HIV, the partner's attitude to sex and their willingness to undergo testing. The participants also completed a structured sociodemographic questionnaire that was used to elicit information about gender, age, education, occupation and religion.

This study was approved by the Ethics and Research Committee of the hospital. Four assistants helped to administer the questionnaire to the subjects in the clinic. The study was anonymous and lasted from January to December 2010.

Data analysis

The results of the study were analysed using the Statistical Package for Social Sciences (SPSS 17.0). The relative proportions of different attitudes and sexual behaviours of people living with HIV were determined. Sample means and percentages were calculated, with which simple frequency tables were created. Standard deviation from the mean was also calculated. Categorical data were compared by means of the chi-square test, using Yates' correction and Fisher's exact test. The corresponding *P*-values were found to determine the level of statistical significance.

A *P*-value of < 0.05 was used to determine the level of statistical significance.

Results

Sociodemographic characteristics

A total of 365 individuals living with HIV/AIDS, consisting of 142 unmarried men and 223 unmarried women, were recruited to the study. Table 1 shows the sociodemographic characteristics of the participants. The mean ages (\pm SD) of the men and women were 36.8 ± 3.9 years and 29.2 ± 1.7 years, respectively. The majority of the participants were under 50 years of age. A total of 267 individuals had received at least secondary school education, while 19.7% had received primary school education and 7.1% had received no formal education. In total, 26.8% of the participants were students, 40.3% were either employed or self-employed, and 32.9% were unemployed. The majority of the participants (93.7%) were Christians of different denominations.

Attitudes and sexual behaviours

Table 2 shows the findings with regard to attitudes and sexual behaviours of the respondents. In total, 67 (47.2%) of the men and 93 (41.7%) of the women never sought information about HIV/AIDS. Sexual activity was variable in 12.0% of men and 15.7% of women, but was high in about 30% of both men and women. In total, 4.9% of men and 10.3% of women reported daily sexual intercourse, 16.2% of men and 15.7% of women reported weekly intercourse, 35.5% of men and 29.6% of women reported monthly intercourse, and 44.4% of men and 44.4% of women stated that they had intercourse occasionally. When questioned about sexual orientation, the majority (92.3% of men and 93.3% of women) stated that they preferred heterosexual relationships, compared with 7.7% of men and 6.7% of women who preferred same-sex relationships. There was a statistically significant difference in the number of participants who had more than two sexual partners (77 men (53.5%) vs. 92 women (41.3%); $P = 0.001$). However, 7.7% of men and 8.5% of women claimed that they always had anal sex, and 19.0% of men and 15.2% of women reported having anal sex occasionally. There was a significant gender difference, as 43 men (30.0%) and 29 women (13.0%) reported having anal intercourse occasionally ($P = 0.001$). In total, 45.8% of men and 51.1% of women refused to use condoms during sexual intercourse. There was no change in

Table 1 Sociodemographic characteristics of the respondents

Variables	Subjects		
	Men <i>n</i> (%)	Women <i>n</i> (%)	Total <i>n</i> (%)
Mean age	36.8 ± 3.9	33.2 ± 1.7	
<i>Age group (years)</i>			
< 20	11 (3.0)	36 (9.9)	47 (12.9)
20–29	38 (10.4)	79 (21.6)	117 (32.0)
30–39	55 (15.1)	61 (16.7)	116 (31.8)
40–49	31 (8.5)	34 (9.3)	65 (17.8)
≥ 50	7 (1.9)	13 (3.6)	20 (5.5)
<i>Educational level</i>			
No formal education	9 (2.5)	17 (4.6)	26 (7.1)
Primary school	24 (6.6)	48 (13.1)	72 (19.7)
Secondary school	56 (15.4)	87 (23.8)	143 (39.2)
Higher school	53 (14.5)	71 (19.5)	124 (34.0)
<i>Occupation</i>			
Unemployed	33 (9.0)	87 (23.8)	120 (32.9)
Employed	55 (15.1)	42 (11.5)	97 (26.6)
Self-employed	29 (7.9)	21 (5.8)	50 (13.7)
Students	25 (6.8)	73 (20.0)	98 (26.8)
<i>Religion</i>			
Christianity	123 (33.7)	219 (60.0)	342 (93.7)
Other	19 (5.2)	4 (1.1)	23 (6.3)

attitude to sexual intercourse in 29.0% of men and 27.8% of women after their partner had tested positive for HIV. However, 7.7% of men and 8.1% of women abstained from sex, 4.9% of men and 7.2% of women broke up with their partners, while 58.4% of men and 34.7% of women used condoms. In total, 89 men (24.4%) and 133 women (36.4%) agreed to undergo testing after their partners had tested positive for HIV, while 12.6% of men and 21.1% of women declined to do so.

Discussion

The results of this study have shown that the attitudes and sexual behaviours of people living with HIV/AIDS are major problems militating against the control of the disease in Nigeria. Until the emergence of antiretroviral drugs (ARD), just as in other countries the main focus of the control and prevention of HIV/AIDS was sexual abstinence. However, the continued increase in prevalence of the disease seems to suggest that there is a need to adopt a multi-

dimensional approach to curb this vast health problem. In the Niger Delta region of Nigeria, with its high level of poverty and poor healthcare services, the soaring numbers of people living with HIV/AIDS may be attributed to the economic problems of the region. These have resulted in the adoption of lifestyles that can increase the rate of transmission of HIV/AIDS in the region. Such lifestyles can be manifested in various ways, including risk-taking behaviour and unhealthy sexual practices. The resulting effect is the inability to control the threat of an upsurge in HIV/AIDS in the region. This has major implications for human growth, as well as for economic and national development.^{5,6}

This study also demonstrates the basic socio-demographic characteristics of people living with HIV/AIDS in the Niger Delta region. Consistent with previous studies, the findings of this study suggest that the participants belong to the age group that is most sexually active and vulnerable.^{7,10,11,12,18} This may explain why a significant proportion (about 27%) of the participants in this study were students. Since the transmission of HIV/AIDS largely results from unprotected heterosexual intercourse, the risk of contracting the virus is high among this popula-

Table 2 Attitude and sexual behaviour of respondents

Variable	Subjects		χ^2	P-value
	Men n (%)	Women n (%)		
<i>Sexual relationship with partner</i>				
Daily	7 (4.9)	23 (10.3)	1.64	0.101
Weekly	23 (16.2)	35 (15.7)	0.001	1.000
Monthly	49 (35.5)	66 (29.6)	1.84	0.066
Occasionally	63 (44.4)	99 (44.4)	0.001	1.000
<i>Sexual activity after testing positive</i>				
Always high	43 (30.3)	67 (30.0)	1.510	0.130
Sometimes high	17 (12.0)	35 (15.7)	1.55	0.121
None	82 (57.7)	121 (54.3)	2.17	0.083
<i>Preferred sexual orientation</i>				
Heterosexual	131 (92.3)	208 (93.3)	0.15	0.878
Homosexual (male)	11 (7.7)	3.39	0.001*	
Homosexual (female)	15 (6.7)	2.88	0.004*	
Masturbation	–	–		
<i>Number of sexual partners</i>				
1	66 (46.5)	131 (58.7)	2.17	0.033
≥ 2	77 (53.5)	92 (41.3)	4.45	0.001*
<i>Frequency of anal sex</i>				
Always	11 (7.7)	19 (8.5)	0.08	0.939
Sometimes	27 (19.0)	34 (15.3)	0.81	0.421
Occasionally	43 (30.3)	29 (13.0)	3.91	0.001*
No response	61 (43.0)	141 (63.2)	3.68	0.001*
<i>Use of condoms during sex</i>				
Yes	77 (54.2)	109 (48.9)	0.88	0.379
No	65 (45.8)	114 (51.1)	0.88	0.379
<i>Partner's reaction to sex</i>				
No change	41 (29.0)	62 (27.8)	1.37	0.170
Abstinence	11 (7.7)	18 (8.1)	0.62	0.537
Pressure to use condom	83 (58.4)	127 (56.9)	2.32	0.070
Break-up of relationship	7 (4.9)	16 (7.2)	0.98	0.325
<i>Partner's reaction to positive test result and their willingness to undergo testing</i>				
Agreed	89 (62.7)	133 (59.7)	2.29	0.022
Never agreed	46 (32.4)	77 (34.5)	1.93	0.054
No response	7 (4.9)	13 (5.8)	0.62	0.535
<i>Seeking information about HIV/AIDS</i>				
Never	67 (47.2)	93 (41.7)	1.41	0.160
Sometimes	49 (34.5)	71 (31.8)	1.34	0.179
Always	26 (18.3)	59 (26.5)	2.39	0.017

*Statistically significant.

tion because of their early exposure to sexual activity.¹⁹ In this study, more than half of the participants were female. This is not surprising, as HIV/AIDS is known to affect women to a greater extent than men.²⁰ This may be due to a number of sociocultural factors, including female disempowerment and traditional culture, which act counter to their basic human rights. Our findings are similar to the results reported in previous studies.^{21–23} It should also be pointed out that in this study we were focusing on an unmarried population. Although it may be difficult to ascertain the influence of marriage on the attitudes and sexual behaviours of individuals, being married does not equate to safe sexual practices and behaviour for any individual. Around 33% of our study population were unemployed. The lack of significant means of earning a living could also have an adverse impact on the behaviour of the study participants,^{7,13,24} as individuals living with HIV/AIDS often face major challenges with regard to standard of living and survival.²⁵ Evidence has shown that these people lack adequate resources for support and care.² These factors could contribute to a high level of risk-taking behaviours and attitudes among those living with HIV/AIDS. With the upsurge of rape and prostitution in the region, the problems of HIV/AIDS could become overwhelming.

The attitudes of the participants in this study have shown that there is an urgent need for change, if efforts to address the increasing incidence of HIV/AIDS are to yield positive results, particularly in view of the fact that more than 45% of the men and 40% of the women in this study had not sought any information about HIV/AIDS. This lack of knowledge could have an adverse impact on the prevention of HIV/AIDS in the region, by limiting access to testing and treatment. Furthermore, despite being HIV positive, around 30% of the study participants still engaged in much sexual behaviour, and more than 40% of both men and women had at least two sexual partners. This, in addition to the high frequency of sexual intercourse among the participants, suggests that the region is facing a very serious threat to the health of the population. The consequences of this attitude in a region such as the Niger Delta, where HIV status is usually concealed, could be enormous. Not only does it lead to the exposure of more individuals to HIV infections, but also the benefits that are usually gained from HIV counselling and testing may be difficult to realise,²⁶ leading to the absence of the key factors in the prevention, treatment, care and support services.

One other major finding of this study concerns the sexual orientation of the participants. Our study shows that same-sex relationships are now not uncommon in the Niger Delta region. This may also have consequences for HIV/AIDS and other sexually

transmitted infections, due to transmission via anal intercourse. These findings have national and international implications because unprotected anal sexual intercourse is 20 times more risky than heterosexual intercourse with regard to transmission of HIV.^{27,28} Therefore it may be very difficult to evaluate the complex interactions of the behaviours involved when assessing the impact of HIV/AIDS in the region, especially when a significant number of the participants are also found to have a high frequency of anal intercourse. Furthermore, around 46% of men and 51% of women in this study reported that they did not use condoms during sexual intercourse, which suggests that the entire population could be at risk. This may have an adverse impact on public health, especially in rural communities where information about sexual health and efforts to address the problem of HIV/AIDS are limited.

There is an urgent need to examine the various attitudes and behaviours of the participants in this study. The attitude to sex despite the fact that their partners had tested positive, and the unwillingness of some individuals to undergo testing, need to be considered. This is because evidence from previous studies has shown that there is a strong association between unprotected heterosexual intercourse and HIV infection.^{10–12} In our study, around 32.4% of male partners and 34.5% of female partners of participants refused to undergo testing even after their partners had tested positive for HIV. Although this is a hospital-based study, it may be possible to extrapolate the findings to the population of Nigeria. The fact that around 46% of men and 51% of women refused to use condoms during sexual intercourse suggests that the level of HIV/AIDS awareness in the region is low. This highlights the need to increase awareness through large-scale campaigns, in view of the significant percentage of the participants in this study who were found to have been persuaded to use condoms during intercourse. Also, despite the fact that their partners tested positive for HIV, 11% of men and 17% of women showed no concern about their sexual practices. The implication is that the rate of spread and transmission of HIV in the region may be difficult to estimate and control, especially at a time when the prevailing socio-economic conditions in the region are forcing many young men and women to adopt a lifestyle that is not conducive to a good quality of life. This could have a negative impact on efforts to fight the spread of HIV/AIDS in the region. Therefore there is a need to strengthen strategies aimed at increasing awareness of the need for an aggressive change in lifestyle and the implementation of voluntary testing/counselling.²⁹ This would in turn lead to a better understanding of the problem, with a desire to adopt measures for prevention and control.

The main limitation of this study is that it is a hospital-based study and thus the results may not be generalisable. Therefore more studies are needed in the region to confirm the findings. Another limitation of this study is that, being based on self-report, there is an obvious tendency for bias to occur among the participants with regard to their responses.

In conclusion, this study has examined various attitudes and sexual behaviours of individuals living with HIV/AIDS in the Niger Delta region of Nigeria. As this disease becomes increasingly difficult to treat, these findings are important and their modifications can aid the fight against HIV/AIDS. This implies that there is a need to initiate policies and programmes that would help to identify attitudes and behaviours that are inimical to the prevention and control of the disease. There is also a need to sustain campaigns through health education and improvement in socio-economic conditions, for the purposes of lifestyle modification.

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