Impact Assessment of HIV/AIDS Knowledge and Prevention among Patrons of Bars and Hotels in Abuja, Nigeria

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The Federal Capital Territory (FCT) Abuja, is notable for its increasing population and convergence of peoples and cultures. This high volume of in-migration into the FCT exerts a considerable pressure on the economic and social life of its inhabitants. Understandably, bar/hotel business ranks among the most patronized ventures in the city as a result of multiple government, academic/research and non-government engagements and attendant activities of sex workers who visit such bars and hotels. As a result of the number of people that have stake either as proprietors or patrons and the centrality of these business outfits to the understanding of events in the city, selected bars and hotels were chosen for this impact study on HIV/AIDS knowledge and prevention. The main objective of this study is to assess the impact of various HIV/AIDS intervention programmes on the knowledge and attitudes of patrons of bars and hotels in the FCT towards HIV/AIDS and adoption of preventive methods through exposure to different prevention strategies. Data for this study were collected at two levels through: (1) a pre-intervention baseline survey; and (2) post-intervention questionnaires. In this way, the level of the effects of the AIDS-education programme on respondents' knowledge and attitude to HIV/AIDS prevention measures was highlighted. The findings show clearly that multiple socioeconomic and cultural factors influence patronage of bars and hotels in the FCT; and the intervention impacted positively on respondents' knowledge of HIV/AIDS, as well as condom use.

Key words: HIV/AIDS knowledge, intervention, patronage, impact, condom, Abuja

Background
Twenty-five years after the incursion of HIV/AIDS into human history, the pandemic is yet to be comprehensively understood due to its inherent complexity. As a result, its medical, emotional and social consequences remain unabated. Although a global phenomenon, the spread and effects of HIV/AIDS are most visible in sub-Saharan Africa. Research has shown that more people have died of HIV/AIDS in this region of the continent than from any other calamity in history (Jegede et al., 2004). Multiple socioeconomic and cultural factors such as poverty, low status of women, multiple marriages among others explain this situation (Kanki and Adeyi, 2006). Studies however indicate that the knowledge of HIV/AIDS, especially, its mode of transmission and means of protection, has generally improved in sub-Saharan Africa, including Nigeria (Adejumo, 2000; Adewole, Lawoyin and Ajuwon, 2000; Ajuwon, 2001). In some communities, though, such
knowledge is still disappointingly low, and as such, many people continue to engage in behaviours that promote risk of contracting the virus such as unprotected sex, use of unsterilized objects and infected needles, among others.

In Nigeria, for instance, despite the wide publicity given to AIDS, a large number of people are still involved in risky sex practices. Literature indicates that HIV has continued to spread mainly through unprotected sexual relationships (Nasidi and Harry, 2006; Akinawo, 1996; Iisu-Abanihe, 1993; Orubuloye, 1993). That does not however suggest that other modes of contracting HIV such as mother to child transmission, transfusion of infected blood, and the use of unsterilized instruments for circumcision and scarification are less important in the HIV/AIDS discourse. Rossem et al. (2001), in a study, as reported by Hearst and Chen (2004), found that in Nigeria, only 2 percent of respondents say they always use condom with a spouse or ‘concubine’. Compared with 33 percent that reported using them with boyfriends and girlfriends, the number of unprotected sex in the country is large. The low use of condoms has been linked with its associated negative image, especially in stable relationships (Muhwava, 2004). These data are disturbing considering that approximately 80 percent of HIV cases worldwide are transmitted sexually (Askew and Berer, 2003).

Consequently, sexually active groups are most vulnerable. Smith (2004) observes that adolescents and adult rural-urban migrants appear to be among the groups at greatest risk of acquiring HIV/AIDS in Nigeria. Hearst and Chen (2004) noted that, in particular, marginalized groups, people with Sexually Transmitted Infections (STIs) and drug/alcohol abusers are at highest risk for HIV transmission. This study was conceived in the light of the latter observation considering that bars and hotels provide the enabling environment for such abuses. More importantly, given the very high rate of in-migration into the FCT and its notable fluidity, the circular pattern of interaction and rural-urban (to and fro) linkages in the spread of the epidemic in the area should be emphasized (see also Smith, 2004; Ososanya and Brieger, 1994). Bar/hotel business ranks among the most patronized business activities in the city as a result of multiple government, academic/research and non-government activities. The major outcome of cultural contacts in a place like the FCT is that individuals from cultures that are sexually more permissive could persuade others to imbibe these traits, including unprotected sex, at times, to a dangerous dimension. Clark (2004) noted three underlying sexual behaviour of partners that are linked to becoming infected with HIV, namely: frequency and duration of unprotected intercourse; number of partners, and HIV prevalence among partners. Commendably, HIV surveillance studies are presently using indicators to monitor the risky behaviours that account for its spread and to identify the protective behaviours that prevent transmission (Obermeyer, 2005).

In the light of the above and with the pandemic showing few signs of abating in the near future, particularly in developing societies, governments and non-governmental organizations have begun to adopt multi-sectoral approaches for prevention of HIV transmission (Askew and Berer, 2003). Intervention strategies are primarily directed at reducing the number of new HIV infections by changing behaviours that are linked to transmission such as condom use, treatment of STIs, number of sex partners, and age at first sex (Bollinger, Cooper-Arnold and Stover, 2004). Issues like: who uses condom, with whom and how correctly and consistently they do so, are critical determinants of their public health impact (Hearst and Chen, 2004).

This study examines the impact of AIDS-education programmes among patrons of bars and hotels in the FCT as a way of measuring the extent to which respondents’ HIV/AIDS knowledge in terms of transmission and prevention methods improved in the period following intervention. Specifically, the study focuses on the promotion of behavioural change through the acceptance and use of various preventive methods. The consistent but gradual reduction in the HIV/AIDS prevalence level in Nigeria has links with these interventions, largely through mass sensitization. The Population Reference Bureau
(2002; 2005) reports show steady decline in prevalence rate of HIV/AIDS in Nigeria from 5.8 percent in 2000/2001 to 5.0 percent in 2003/2004, and further dropped to 4.4 percent in 2005 (see also Federal Ministry of Health, 2005). Prevalence rate in the Federal Capital Territory is 6.3 percent, well over the national average. Increased commitment by various stakeholders in the fight against the disease will lead to an appreciable reduction in the number of people infected and affected by the pandemic in Nigeria and the developing societies.

Theoretical Framework
The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviours. This is done by focussing on the attitudes and beliefs of individuals. The HBM is based on the understanding that a person will take a health-related action (i.e., use condoms) if that person feels that a negative health condition (i.e., HIV) can be avoided; has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., using condoms will be effective at preventing HIV), and believes that he/she can successfully take a recommended health action (i.e., he/she can use condoms comfortably and with confidence).

The HBM was spelled out in terms of four constructs representing the perceived threat and net benefits: perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. These concepts were proposed as accounting for people's 'readiness to act'. An added concept, 'cues to action', would activate that readiness and stimulate overt behaviour. The HBM states that the perception of a personal health behaviour threat is itself influenced by at least three factors: general health values, which include interest and concern about health; specific health beliefs about vulnerability to a particular health threat, and beliefs about the consequences of the health problem. Once an individual perceives a threat to his/her health and is simultaneously cued to action, and his/her perceived benefits outweighs his/her perceived benefits, then that individual is most likely to undertake the recommended preventive health action. There may be some variables (demographic, socio-psychological and structural) that can influence an individual's decision.

The HBM is a framework for motivating people to take positive health actions that uses the desire to avoid a negative health consequence as the prime motivation. For example, HIV is a negative health consequence, and the desire to avoid HIV can be used to motivate sexually-active people into practising safe sex. Similarly, the perceived threat of a heart attack can be used to motivate a person with high blood pressure into exercising more often.

Methodology
The study basically employed quantitative technique for data collection and analysis. The rationale for AIDS education and promotion of condom use on patrons of bars and hotels in the FCT was that in these places were found different classes of people and, as such, convincing respondents to participate in the survey was very difficult. In addition, it was easier to meet people who engage in extra-marital sex and drug and substance abuse, which directly or indirectly are the main sources of HIV transmission, in these places.

Study design
This study adopts a quasi-experimental design involving a one group pretest-post test evaluation of the effectiveness of intervention carried out. With this design, pretest observations on knowledge and attitude to HIV/AIDS prevention were recorded on a group of patrons of bars/hotels, multi-intervention processes in the form of flyers, hand bills, and music were applied, after which the post test observations of the impact were made. However, this study does not claim to provide hard-headed causal inferences.

Study instruments
The study instruments include two sets of questionnaires, a pretest survey of knowledge and attitudes of patrons of bars/hotels, and a post survey questionnaire. While the pretest survey documents the knowledge and attitudes of patrons prior to intervention, the post survey evaluates the changes in
their behaviour after treatment. Specific questions in the post questionnaire inquired about any change in the respondents' behaviour and their perceived source of information necessitating the change. With these questions, it was possible to assume a relationship between the intervention and later knowledge, attitude and behaviour.

Study area and participants
The study was conducted in Nigeria's Federal Capital Territory (FCT) and its immediate environs to assess the impact of an AIDS education programme on the knowledge and attitude of patrons of selected bars and hotels towards HIV/AIDS prevention strategies. The population of Abuja has been increasing over the years because of multiple activities that take place in the FCT and in particular since it became the administrative capital of Nigeria. In 1981, for instance, the population was 170,575 and by 1991 increased to 378,671. The population was projected at over half a million in year 2000 (Abubakar and Mundi, 2000). Now, unconfirmed reports claim that the population is a little over four million. Participants for the study were selected among regular patrons of 20 selected bars and hotels in the FCT and who would be around the study area for at least two months. The bars and hotels are sometimes inseparable as patrons throng the bars of most hotels. In some other cases, there are bars outside of hotels usually patronized by residents and visitors to Abuja. Preliminary investigations also revealed that a large number of Abuja residents go to these bars and hotels for relaxation in the evenings.

A baseline study was carried out among male and female respondents to ascertain the level of awareness related to the etiology and consequences of AIDS prior to intervention. The survey schedule, which contained open and close-ended questions, was administered to respondents at these bars and hotels with emphasis on their convenience. The bars and hotels were selected based on reported high patronage. Selection of respondents at this level was through systematic sampling technique, which necessitated the inclusion of every 4th patron that visited any of the selected bars and hotels. Where an initially selected respondent for some reason would not be regular at these bars and hotels, the next legible person was chosen. Baseline questionnaires were administered to these respondents to ascertain their knowledge level prior to intervention.

Exposure of Participants to Interventions
The AIDS education programme involved the distribution of flyers/hand bills, containing a variety of messages, daily for a period of two months to individuals that visited selected bars and hotels regularly. The messages in the flyers and handbills were written in English, pidgin (a kind of corrupted English mostly used among illiterates), Hausa, Yoruba and Igbo because of the multi-linguistic nature of Nigeria. The handbills were also placed in the entertainment rooms, hotels/bars for interested persons. Strong emphasis was placed on the benefits of condom use and safe sex on one hand, and the consequences of unprotected or casual sex on the other. These were distributed to all those that were found in and around the selected hotels and bars. To allow for measurability of the impact of the intervention, the intervention was also particularly targeted at respondents that took part in the baseline survey. These IEC messages were explained to participants and their views and concerns were discussed and clarified.

The next level of intervention involved the artistes/bands who related the AIDS prevention messages through music and entertainment. This became necessary in view of the fact that most of these bars and hotels engage the services of artistes to attract customers given the competitive nature of the business in the FCT. The approach involved these artistes engaging patrons for about one hour daily on scenes that focussed on HIV/AIDS awareness. In addition, condoms were distributed to patrons of these bars and hotels at no financial cost. The intervention team did not just distribute these condoms, but created an activity such as a raffle draw, from which the winners receive the condoms. This approach not only made the programme lively but also was meant to make patrons cherish these prizes. The programme was closely monitored.
through field assistants that were deployed to all the selected bars and hotels in the FCT. Consequently, efforts were made to include persons that were involved in the baseline survey and who were willing to attend the daily/weekly shows at these locations, among other participants. In addition, preliminary investigation had showed that patrons of bars/hotels are usually very regular attendees and the likelihood of follow-up activities was possible with the same people even after a year. Consequently, more that 80 percent of those that participated in the baseline were also part of the intervention and post-intervention study.

A post-intervention study was conducted to ascertain the extent to which the target population was responding to the intervention messages. Data were elicited using questionnaire administered to respondents in/around the targeted bars and hotels in the FCT. To ensure that the actual impact of the programme could be measured with some degree of reliability and validity, pre-intervention responses from the same set of respondents were isolated for analysis. The process of fieldwork lasted for two months.

Procedure for Data Analysis
The data were analysed at univariate and bivariate levels using Statistical Package for Social Science (SPSSv10). The first step was to examine the distribution of socio-demographic characteristics of the respondents; these include variables such as sex, age group, marital status, ethnic group, educational level, employment status and religion.

Further bivariate analyses were carried out to examine the respondents’ knowledge and attitude towards HIV/AIDS as well as adoption of preventive behaviour. Specifically, the chi square analysis was used to measure the relationship between the intervention and later behaviour.

Ethical Issues and Limitation of the Study
Ethical issues such as respondents’ informed consent and freedom to withdraw from the study at any time were communicated to the respondents in unambiguous terms. In addition, privacy, anonymity and confidentiality of respondents were emphasized and observed. Finally, the findings of the study would be communicated back to a majority of the participants in order for the latter to benefit from their contributions to the study. One of the main limitations of this study is the inability to control exposure of respondents to other sources of information during and after intervention arising from this study. In addition, the scope of the study is limited to knowledge; its end product which is behaviour (usually the independent variable) was not analyzed. Consequently, this study cannot provide insight with regard to disparity between knowledge and behaviour, which could form the basis for interventions in thematic location.

Results and Discussion
Demographic profiles of respondents
A total of 2550 patrons of bars and hotels in the FCT participated in the study; however, only responses from 2537 participants were analyzed. This number represents a 99 percent response rate. Table 1 shows the demographic characteristics of respondents that participated at all levels of the study, with reference to sex, age, marital status, ethnic group, educational level, employment status and religion. The table indicates that among the respondents, more males (59.7%) patronized bars/hotels in the FCT than females (40.3%). The patriarchal ethos governing behaviour in most cultures in Nigeria, hardly allows women such liberty. Consequently, females most times would prefer to be taken to these bars/hotels by a male friend or family member to avoid either being embarrassed or stigmatized or both.

Moreover, more males than females are financially capable of spending their incomes on items outside the regular general family goods and services. The imbalance in income levels between males and females is a function of several factors such as disparity in access to information, education and economic opportunities (UNICEF, 2000, United Nations 2000; Akande, 1999; Bongaart, 1997). Table 1 also indicates that age is significantly related to attitude and behaviour of individuals towards patronizing bar/hotels in the FCT. Respondents who
were below 23 years and those above 47 years patronized these bars and hotels the least (9.6 percent and 2.4 percent, respectively).

For respondents below 23 years, the reason is most likely financial incapacity considering that at that age most people are either schooling, unemployed or learning different trades (apprentices). The reasons that could be attributed to the low patronage of respondents above 47 years include: increasing family responsibility and an awareness of the dangers inherent in such behaviour. Such responsibility and awareness are largely blurred by exuberance among younger people who have some freedom and financial capacity to patronize bars/hotels. The table shows a consistent reduction in the percentage of respondents that patronized these bars and hotels, with ages 23-27 (28.4%) recording the highest frequency followed by respondents of age 28-32 (25.3%).

The marital status of respondents, as shown in table 1, indicates that 59.8 percent of those involved in the study were never married, 35.4 percent were married, while 4.5 percent were either separated or divorced. These figures confirm that marriage is associated with responsibilities in terms of time and finance, which explains why respondents who are never married have the highest frequency in this category. Interestingly, respondents who are either separated or divorced formed only 4.1 percent of the total. This is surprising considering that the latter status is associated with anxiety, stress and emotional imbalance and as such, people who belong to this category, most times, resort to patronizing bars/hotels as a way of managing inherent frustrations.

In terms of the ethnic origin of the respondents, the three major groups in Nigeria recorded the highest percentages, with the Igbo representing 25.3 percent, the Yoruba 20.6 percent, the Hausa 6.8 percent, while the other ethnic groups like the Ebira, Igal, Tiv, Efik/Ibibio, Kanuri, Birom among others put together represent about 47 percent of the total. These other ethnic groups, going by Otite's (2000) identification of cultural groupings in Nigeria, aside from the three major ones, are 270 in number, suggesting that the latter are disproportionately represented among respondents for this study. Among the major groups, the percentage of the Hausa involved in the study, and which is a true representation of the group's patronage of bars, is comparably low. This could be attributed to adherence to Islamic religious values embedded in sharia, which forbids from alcohol consumption.

| Table 1. Socio-demographic characteristics of respondents |
|---------------------------------|------------------|--------|
| Characteristics                  | Frequency | Percentage |
| **Sex**                          |           |        |
| Male                            | 1442      | 59.7   |
| Female                          | 972       | 40.3   |
| **Age Group**                   |           |        |
| Below 23                        | 242       | 9.6    |
| 23-27                           | 721       | 28.4   |
| 28-32                           | 642       | 25.3   |
| 33-37                           | 465       | 18.3   |
| 38-42                           | 257       | 10.1   |
| 43-47                           | 150       | 5.9    |
| above 47                        | 60        | 2.4    |
| **Marital Status**              |           |        |
| Never married                   | 1516      | 59.8   |
| Married                         | 897       | 35.4   |
| Separated/divorced              | 103       | 4.1    |
| No response                     | 21        | 0.8    |
| **Ethnic Group**                |           |        |
| Igbo                            | 641       | 25.3   |
| Yoruba                          | 525       | 20.6   |
| Hausa                           | 172       | 6.8    |
| Others                          | 1190      | 46.9   |
| No response                     | 9         | 0.4    |
| **Educational Level**           |           |        |
| No formal education             | 29        | 1.2    |
| Primary                         | 102       | 4.0    |
| Secondary                       | 651       | 25.7   |
| Tertiary                        | 1169      | 46.1   |
| No response                     | 586       | 23.0   |
| **Employment Status**           |           |        |
| Formal sector                   | 1066      | 42.0   |
| Self employed                   | 881       | 34.7   |
| Unemployed                      | 464       | 18.3   |
| No response                     | 126       | 5.0    |
| **Religion**                    |           |        |
| Christianity                    | 429       | 16.9   |
| Islam                           | 2032      | 80.0   |
| Traditional                     | 54        | 2.1    |
| No response                     | 22        | 1.0    |

The mean education level of respondents is secondary school, while majority had higher levels of education. Consequently, it seems that the patrons of the clubs that were surveyed were largely from the
highly-educated subgroup in the society, a fact that is in consonance with the demographic attributes of the residents of core Abuja. The respondents consist of those that live within the city and can afford to patronize the hotel/bars etc. Nearly 45% of them were in formal employment.

Respondents' Knowledge and Attitudes towards HIV/AIDS
Figure 1 highlights the sources of HIV/AIDS knowledge among respondents before and after intervention. In this way, the impact of awareness of HIV/AIDS among respondents from each of the sources can be measured. The figure shows that apart from the 'significant others' (friends/relations) category, which indicates a negative impact considering that more respondents had higher knowledge of HIV/AIDS prior to, than after the intervention (74.7% and 73.3%, respectively), the other categories show positive impact. However, the mass media and religious groups recorded the least impacts among respondents even though they have a positive effect on HIV/AIDS knowledge.

It is clear from figure 1 that flyers/posters/bill had the highest impact on the respondents' level of HIV/AIDS knowledge, indicating about a 10 percent difference between the pre- and post-intervention periods. Awareness and cues to health-related action are significant factors in avoiding perceived negative behaviour or vulnerability to risky encounters. Health workers and workplace/school moderately impacted on the knowledge of respondents. Specifically, the percentage difference between pre- and post intervention knowledge gained by the respondents through health workers and work place/school are 5.8 percent and 4.2 percent, respectively.

Impact Assessment of AIDS Education Programme on the Knowledge of Patrons of Bars/Hotels in the FCT
The ANOVA result in table 2 shows that AIDS-intervention did not have significant impact on knowledge about HIV/AIDS among respondents at 0.05 level of significance. The level of awareness was quite high prior to intervention.
Conversely, the knowledge of sexually transmitted diseases (STDs) improved significantly among respondents' post intervention ($P = 0.015$). Some of the STDs identified by the patrons included gonorrhea, syphilis, herpes and HIV/AIDS. Table 2 further shows that most respondents said they would insist on the use of condoms for sexual intercourse as a result of the significant impact ($P = 0.000$) arising from the increased awareness.

**Respondents' Knowledge and Practice of Prevention Methods**

Table 3 shows respondents' knowledge on strategies for prevention of HIV/AIDS. These data clearly show that knowledge about prevention methods among respondents improved significantly about some methods while in others, improvement was marginal. Apart from the 'using native charms' category, which indicates a negative association (with the percentage of respondents that ascribe to this method higher at post-intervention than pre-intervention period at 3.1 percent and 2.0 percent) with knowledge of HIV/AIDS prevention, other categories reveal a positive relationship. Table 3 conversely indicates that intervention accounted for change in perception among respondents. For instance, 4.6 percent of respondents prior to intervention conceived the use of antibiotics immediately after sex as a preventive method; the percentage of respondents who still had this perception dropped to 3.6 percent.

Similarly, the percentage of respondents that identified praying before intercourse and urinating immediately after sex as preventive methods dropped from 1.8% to 1.7% and 2.2% to 1.3% percent, respectively. However, the drop in the percentage of respondents who identified praying as an option was not impressive given that various religious beliefs and values condemn sex outside marriage. Furthermore, table 3 reveals a marginal increase in the percentage of respondents that identified 'not being promiscuous' (63.1 - 64.3 %) and 'sticking to a partner' (77.1 - 79.1%), representing an increase of 1.2 percent and 2.0 percent, respectively.

It is important to assert that the figures reported above are disappointing considering the strong and
sustained emphasis on these preventive methods. Moreover, the 6.9 percent increase (from 78.4% to 85.3%) in the number of respondents that agreed that practising safe sex was a viable preventive method questions the consistency of the responses related to promiscuity and faithfulness to partner; because the safest method for HIV/AIDS prevention is sticking to a sex partner. The advantage of the latter approach is that confidence among partners is reinforced to the extent that using condom at all times would be de-emphasized. Lack of such confidence explains why the percentage of respondents that suggested testing of partners increased from 41.1 to 44.0 percent. It is also related to the increase in the percentage of respondents that identified ‘using condom at all times’ from 85.0 to 88.4 percent. Nevertheless, the merit in undergoing HIV-test cannot be overstated. Especially with breakthroughs in medicine that have changed the status of HIV/AIDS from a short term killer to a chronic disease (Abikoye, 2005). As a result, early detection and adequate care and support will ensure that people infected with the virus can live for a long time.

Finally, although the shortcomings of the one group pretest/post-test design, namely history and maturation are noted; these will not significantly affect the outcomes of this study because of the short pretest-post test time interval as argued by Cook and Campbell (1979).

Conclusion
This study had focussed on the patrons of bars and hotels in the FCT for three main reasons. Firstly, these places typically provide the enabling scenario for the high rate of negotiations and sexual intercourse. Secondly, the city is characterized by a high volume of in-migration from all parts of Nigeria and beyond, usually among people of working ages and the sexually-active. Thirdly, and more importantly, there is an unprecedented number of permanent and semi-permanent residents as well as short-term visitors to the FCT that have stake in bars and hotels in the territory either as owners/managers or patrons. Consequently, programmes that focus on the sexual behaviour of adolescents and young adults would likely succeed both in scope and content when they are situated at places where sexual networks are most visible, such as bars and hotels. It is therefore suggested that given the successes recorded by this activity, that the study be replicated in other states in Nigeria, especially in places with a prevalence-average higher than the national. Such replication would activate new challenges, especially understanding the contexts of different scenarios such that energies are directed to the most appropriate places/sectors where maximum benefits could be derived. This implies that the target sites in other locations may not necessarily be bars and hotels. Whatever be the case, efforts should not be spared at ensuring that knowledge of HIV/AIDS is sustained with the pandemic showing few signs of abating in the near future.

References


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