Compliance of HIV Patients to Treatment Regimen

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ABSTRACT *This study was aimed at assessing the attitude and compliance of HIV patients towards their treatment regimen of Antiretroviral Therapies (ARTs). A total of 324 patients were randomly selected from HIV patients assessing treatment from Communicable Disease Control and Research Clinic and questionnaires were administered. Result showed that the incidence of HIV was more prevalent (57.10%) among women. The age groups 30-39 years were predominantly affected. Most (61.4%) of respondents had been positive for > 1year-5 years and 23.1% of the respondents had been on ARTs for > 5 years. About 67.3% had never missed a dose of drug and 80.9% took drugs at the right time. The 41.3% of non-compliant patients complained being busy, followed by forgetfulness (39.7%), the least (7.0%) feared drug reaction. Though most of them were compliant to treatment regimen, this is still not up to the desired 95%-100% compliant rate needed to achieve maximum efficacy. There is need to optimize health education towards HIV and it's treatment.*

INTRODUCTION

The HIV/AIDS epidemic still remains a critical public health issue, affecting all communities across the country and around the whole world in spite of progress made in its treatment (Smeltzer *et al.*, 2008). According to the International AIDS Vaccine Initiative Report (2003) about 40 million cases of HIV infected persons are found in the sub Sahara Africa. The current estimates are that 20-26% of the age group affected is between 15-40 years (Africa Health Publication, 2001).

Acquired Immunodeficiency Syndrome, since its discovery about 32 years ago, has witnessed remarkable progress in its treatment aimed at improving the quality and duration of life for those affected. The nature of infection with HIV/AIDS has also changed since the widespread availability of potent triple combination therapy (APHA (2004). The first decade of the progress was concerned with recognition of opportunistic disease processes, and introduction of prophylaxis against common opportunistic infections, and development of effective therapy for complication. The second decade made progress towards the development of highly active and retroviral therapies (HAART) as well as continual progress towards treating opportunistic infections. The third decade focused on issues of adherence to therapy, development of second generation medication to treat HIV disease and the continual quest for developing a vaccine (Smeltzer et al., 2008). The disease is presently managed with combined highly active antiretroviral therapies which increase the length and quality of life and productivity of the affected patient. This is achieved by its efficacy in improving immune function, reducing viremia and reducing HIV related morbidity and mortality. The efficacy of these combined antiretroviral therapies (ARTs) depends greatly on compliance to treatment regimen. According to recent studies ARTs regimen requires 70-90 % adherence in order to be effective (Reda and Bi-

adgilign, 2012). There are different methods of assessing compliance and the level of compliance which is specific not only to places, patient, and groups but also to the methods of adherence measurement. The measurement of medication compliance is difficult both on the clinical area and research settings. Given the significance of viewing medication initiation and continuation as a process involving stages of changes, measurement tools were developed (APHA (2004). While there may be no gold standard to measure compliance, there are several strategies available each with its respective strengths and weaknesses.

Compliance to HIV treatment regimen which embodies both medication and other treatment regimen such as behavioural or attitudinal change leads to increased length and quality of life and enhanced productivity in life even while being HIV positive. This study was carried out with the aim of determining HIV patients/clients attitude and compliance towards antiretroviral therapies and to identify various factors that influence compliance to antiretroviral therapies and positive health living.

MATEIALS AND METHODS

The setting of study was Federal Teaching Hospital Abakaliki (FEATH 11), Ebonyi State in South Eastern Nigeria. The study populations were known HIV/AIDS patients who were receiving Antiretroviral Therapy (ART) treatment at the Communicable Disease Control and Research Clinic (CDCRC) within the hospital.

In carrying out this study descriptive study design was used to assess the attitude compliance of HIV patients towards treatment and positive healthy living. A sample size of 324 patients was randomly selected for the study. The participants were selected through purposive sampling technique. Ethical approval of the study was

obtained from the research ethics committee of Federal Teaching Hospital Abakaliki and a written informed consent also obtained from the participants who were willing to participate. The instrument used for data collection was questionnaire. A well structured closed and open ended questionnaire items were used to elicit information from the patient. The questionnaire items were mainly on personal data background information on HIV status, compliance towards treatment and strategies to improve compliance.

The questionnaires were distributed to the HIV/AIDS patients during their clinic days at the CDCRC with the help of nurses and attendants. For the patients who could not read or write, the contents of the questionnaire items were explained to them and their responses ticked accordingly. The questionnaires were filled returned and immediately.

A total number of 324 questionnaires were distributed to HIV patients who were on treatment and were also willing to participate on clinic days over a period of 4 weeks. All the 324 participants returned their questionnaires. The data collected were analyzed and presented using tables, pie charts, bar charts. The analysis included frequencies and percentages.

RESULTS

Out of the 324 patients involved, 42.90 % of the respondents were males while 57.10 % were females. Greater than one third 124 (38.27 %) of the patients were within the age range of 30-39 years, followed by those within 40-49 years which was 93 (28.70 %).

The 75 (23.15 %) of the patients had been on ARTs for over 4 years, followed by 68 (20.99 %):- 6 months- 1 year, 64 (19.75%) :- > 2 years- 3 years, 54 (16.67 %) :- > 1 year- 2 years. While 37 (11.42 %) had been on ARTs for > 3 years – 4 years, the remaining 26 (8.02 %) had been on ARTs since they started being sick (Figure 1). The 218 (67.28 %) who had been placed on ARTs have never missed a dose of their ARTs while 106 (37.72 %) had missed doses (Figure 2). Also, 262 (80.86 %) always took their drug at the right time while 62 (19.14 %) did not. Those who did skip dose twice were 46 (43.40 %) while 30 (28.30%) who missed taking medication only once and another 30% missed more than thrice.

The greater percentage (37.04%) of the non compliant patients who missed doses or did not take drugs at right time responded that they were busy, followed by 35.56 % who responded that they were of forgetful, 9.63 % non-compliance was due to lack of transport fare to health centre, 12 (8.89 %) patients said that skipping doses was due to not having the drug on them at the moment they needed to take it. The least response (1.48 %) was due to reaction to the drug (Table I).

DISCUSSIONS

The information obtained from the demographic data on sex distribution showed that the incidence of HIV were more prevalent among women (57.10%) than men (42.90 %). A study carried UNAIDS and WHO (2002) revealed that in sub-Sahara Africa, women constituted 60% of people living with HIV/AIDS. A similar study conducted in Nigeria by Olowookere et al (2012) showed that the incidence of HIV was more prevalent in female. Thus it can be said that women have a higher incidence rate

of HIV infection than men. The result on the age group of the respondents revealed that the majority (38.27%) of those affected were within the age range of 30-39 years. This age group is the productive age and workforce of the nation. This tends to agree with a similar work by UNAID and WHO (2002) in Sub Sahara Africa, where the age groups mostly affected were within the age range of 15-40 years which also represents the productive age.

The result from this research revealed that the greater percentage of the respondents had been on ARTs for more than 5 years. This was followed by those who had been on it for more 2 years. The greater percentage (67.28) had never missed a dose of the therapy and (80.86%) had always taken their drug at the right time. The greater percentage of those who missed their drug missed it twice. From this report it can be said that more than two third of the respondents were compliant to their ARTs. A study carried out by Vireeman et al (2008), revealed compliance level of > 75% in developing countries and < 75% in developed countries. A similar study carried out by Olowookere et al (2012) in Nigeria reported compliant rate of 62.9% in HIV patients towards their ARTs. From the results it can be seen that though most of the respondents were compliant, it is still not up to the expected level (95%-100%) required to achieve maximum success in all the respondents.

The respondents who were not compliant gave the following reasons for not being compliant very busy, forgetfulness, lack of transport money, not having the drug on them at moment. These findings demonstrated that there are some factors that influence compliance to ARTs. This tends to agree with report from Mill et al (2006) who discovered that barriers to non compliance in HIV patients could be attributed the following factors; fear of disclosure, forgetfulness, health illiteracy, substance abuse, patient being away from medication, transport cost, and lack of social support. Non compliant patients can be helped to become more compliant by finding out the reason for not being compliant then using some of the strategies to improve compliance. Stone (2001) reported that there are strategies that can be used to improve compliance and to apply the right strategy, the pattern of non-compliance should first be assessed. Reducing the frequency of the dosage to once a day and asking someone to remind them may enhance compliance. Using reminder devices such as alarms and watches may help patients be more compliant

CONCLUSION

From the results it can be seen that though most of the respondents were compliant, it is still not up to the expected level (95%-100%) required to achieve maximum success in patients. The non-complaint attitude of patients may change if the populaces are exposed to more health talks and lectures which will enable them be more knowledgeable, build their confidence and become more compliant. Identification, reassessment and counseling of non-compliant patients are necessary strategies that can be employed to make them become more compliant.
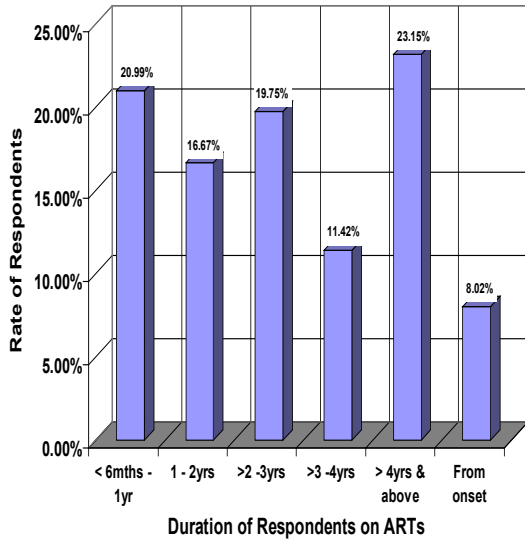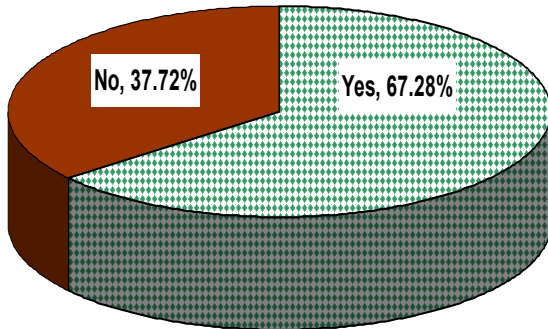
Figure 1
Duration of Patients' Being on ARTs

Table I
Reasons for missing doses of ARTs or not taking at the right time

Reason	Frequency	Percentage
Very busy	50	37.04 %
Ashamed of collecting drugs	4	2.96 %
Forgetfulness	48	35.56 %
No money for transport	13	9.63 %
Don't like the taste of drug	0	0.00 %
Attitude of doctors and nurses	3	2.22 %
Tired of taking drugs	3	2.22 %
Far distance	0	0.00 %
Not having the drug on them at the moment	12	8.89 %
Reacts to drug	2	1.48 %
Unavailability of drug	0	0.00 %
Total	135	100.00 %

Figure 2
Responses of Patients on Missing Doses of ARTs

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