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Socio Demographic Analysis of the Attitude of Hiv/Aids Patients to Anti – Retroviral Medicines

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Abstract:
This study focused on attitude of HIV/AIDS patients to the intake of their anti – retroviral medicines. Socio-demographic factors influencing these patients were analysed using descriptive and inferential statistics – binary logistic regression analysis. Over half of the respondents 201 (66.6%) were females while about one third 101 (33.4%) of the respondents were males. Little above one third 104 (34.4%) of the respondents were self-employed while about one third 81 (26.8%) of the respondents were in business. About half 127 (42.1%) of the respondents were between ages 30 and 39 years while only 25 (8.3%) were between ages 20 and 29 years. Over half 184 (60.9%) of the respondents were with their spouses while only one fortieth 8 (2.6%) were with their relatives. The odds of the significant variable show that male respondents were 1.99 times as likely as female patients to take their drugs. Similarly, the odds of other variables occupation and time of drugs show that they are the major contributing factors to the fact that these patients miss their medicine intake at specified times. The results showed a significant relationship between occupation and time of drugs to adherence of these patients in taking their medicines.The following recommendations were made: the HIV/AIDS patients should be allowed to work in any organisation or system that is convenient to them so as to enable them take their medicines as at when due and a flexible time of taking the medicinesshould be encouraged.

Keywords: *Logistic Regression, Odds ratio, Health professionals, HIV/AIDS patients*

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I. INTRODUCTION

HIV/AIDS is the most essential pathogen of this century and has defied all odds to a level that it threatens the very fabric of human existence (Adebanjo; Bamgbala and Oyediran (2003)). For years now, the entire world has been trying to grapple with the rapid spread of the deadly disease AIDS.With the look of things, thebattle to stop it is nowhere near being won, as health organizations and NGO's continue to reel out disturbing statistics to show that the disease is still spreading unabatedly (Balogun.,Abiona., Adefuye, &Sloan *(*2010*)*). As at the moment, HIV has affected the economic, social and psychological well – being of nations, familes and even the entire globe. Efforts are being made to find a lasting solution though it seems that as much effort is being made, no tangible result is obtained (MobolanleBalogun and Odeyemi (2010)).

II. LITERATURE REVIEW

The first case of HIV was in the United States, but HIV has over time and years spread to all parts of the parts of the world. HIV/AIDS continues to pose major challenges to the socioeconomic development of Nigeria. This dastardly deadly disease was firstly formally diagnosed in Nigeria in the year 1986 (UNAIDS, 2006). Adult prevalence rates rose steadily from the first documentation of 1.8% in 1993 to 4.6% in 2000 to 5.8% in 2001and declined to 3.6% in 2010 (Federal Ministry of Health (FMOH) ,2010). As at 2006, 2.9 million people from age 0-49 years were living with HIV, and AIDS deaths had taken 220,000 lives (FMOH, 2005). The Lagos state commissioner for Health describes the HIV/AIDS status of the state as worrisome. The commissioner spoke at the 2010 celebration of World AIDS Day, "The sentinel surveys carried out in Lagos has confirmed a steady, though inconsistent increase in the number of HIV infected people. At presence, the prevalence rate in the Lagos state currently stands at 5.1 percent (990,000) of the population, it has gone up again from the 3.3 percent it used to be," he said. The most commonway of contracting the disease is through sexual intercourse with infected person. , But the incidence through blood transfusion is also high. The available data from the various categories of people screened in the laboratory at General hospital in Lagos shows an average

prevalence of 3.8% among blood donors, 2.1% among antenatal clinic attendances and 11.8% among hospital patients. (Oyeyemi, Adetoyese, Bashir, Oyeyemi and Ibrahim (2008))

III. METHODOLOGY

The study area

General Hospital Lagos was the study area.

Research design

The study employed a survey design involving quantitative methodology. Study population consists of both doctors and nurses There exists 28 treatment centres in Lagos for HIV / AIDS patients. An appropriate sample size determination formula was employed to select a total of 308 respondents. Systematic Sampling technique was used to select six doctors and five nurses from each centre. Primary data was obtained through the administration of questionnaire. The questionnaire elicited information on background characteristics and information on the attitudes of the respondents towards PLHIV.

Sample size and sampling procedure:

Sample size determination

In this study, the interest is to obtain an estimate of the proportion of the population that possesses a particular attribute.

Using this information, the required sample size (n), for a descriptive study as given by Wingo et al., (1991) is calculated as:

The minimum sample size was calculated using the formula below

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

where n = minimum sample size for a statistically significant survey

z = standard normal distribution, usually set at 1.96 which corresponds to the 95% confidence level.

P = prevalence of communication at construction projects.

P = 0.436

Q = 1- p

d = degree of accuracy desired usually set 0.05 Where :

Z = 1.96

P = 0.436

d = 0.05

$$N = \frac{1.96^2 \times 0.436 \times 0.564}{0.05^2}$$

= 286

For non response

If non response is 10%

Final sample size = 302

Sampling Procedure

Convenient and purposeful sampling techniques were used.

Research Instruments

Questionnaire was used to elicit the required information. The questionnaire consisted of both closed and open-ended questions on respondents' demographic and other background information. Section 2 contained questions about attitudes towards AIDS patients. Section 3 contained knowledge about AIDS. Field assistants were recruited and trained before the field work began.

Data analysis

Three levels of data analysis were employed in the study and they included univariate, bivariate, and multivariate techniques. Univariate analytic technique is a descriptive analysis that presents a clear picture of the background characteristics of respondents by examining one variable at a time. This involves the use of tables, charts and graphs. In this study, univariate analysis was used for some objectives.

In the second level of analysis, associations between the selected background characteristics and the dependent variable were examined through cross tabulation and chi-square was employed for test of significance.

The third level of analysis, the multivariate analytical technique categorizing into two options (i.e willing and not willing) was used.

In the equation above, X1, X2, …., Xn are the independent variables, which include background variables such as age, religion, professional status, marital status, ethnicity and type of practice. B_0 is a constant, B_1….Bn are coefficients. P is the occurrence probability of the dependent. The odds ratio of the model was used to determine the relative importance.

IV. RESULTS

Table 1: Respondents' sex

Sex of Respondents

	Frequency	Percent
Male	101	33.4
Female	201	66.6
Total	302	100.0

Over half of the respondents 201 (66.6%) were females while about one third 101 (33.4%) of the respondents were males.

Table 2: HIV/AIDS Test trigger

Who/What prompted going for HIV test

	Frequency	Percent
You were sick	127	42.1
Job recruitment medical test	26	8.6
Someone's advice	43	14.2
one's decision to go for the test	106	35.1
Total	302	100.0

About half 127 (42.1%) of the respondents were sick before discovering their HIV status while only 26 (8.6%) discovered that they were HIV positive when they went for job recruitment exercise.

Table 3: Respondents' occupation

Occupation of Respondents

	Frequency	Percent
Business	81	26.8
Civil Servant	36	11.9
Self Employed	104	34.4
Artisan	81	26.8
Total	302	100.0

Little above one third 104 (34.4%) of the respondents were self-employed while about one third 81 (26.8%) of the respondents were in business.

Table 4: Ages of Respondents

Age Group of Respondents

	Frequency	Percent
20 - 29 years	25	8.3
30 - 39 years	127	42.1
40 - 49 years	98	32.5
50 - 59 years	52	17.2
Total	302	100.0

About half 127 (42.1%) of the respondents were between ages 30 and 39 years while only 25 (8.3%) were between ages 20 and 29 years.

Table 5: Respondents' educational level

Educational Level of Respondents

	Frequency	Percent
Primary School	67	22.2
Secondary School	98	32.5
Polytechnic	56	18.5
University	81	26.8
Total	302	100.0

One third of the respondents 98 (32.5%) of the respondents had secondary education, one fourth of the respondents 81 (26.8%) had university education while about one fifth 56 (18.5%) had polytechnic education.

Table 6: Respondents' co - occupants

Co-occupant with Respondent

	Frequency	Percent
Spouse	184	60.9
Relatives	8	2.6
Friends	20	6.6
Alone	90	29.8
Total	302	100.0

Over half 184 (60.9%) of the respondents were with their spouses while only one fortieth 8 (2.6%) were with their relatives.

Table 7: Distance to the health facility

Distance to health facility

	Frequency	Percent
Close	173	57.3
Far	121	40.1
Very far	8	2.6
Total	302	100.0

Over half 173 (57.3%) of the respondents lived very close to the health facility while about one fourth 121 (40.1%) lived far from the health facility.

Table 8: Response to treatment

Description of health since treatment commenced

	Frequency	Percent
I feel better	294	97.4
I feel worse	8	2.6
Total	302	100.0

About one hundred percent 294 (97.4%) of the respondents felt better since they commenced treatment.

Table 9: Additional intake with the anti – retroviral drugs

What the respondents take with the ARVs

		Frequency	Percent
	Food supplements	189	62.6
	Medicines from other hospitals or clinic	8	2.6
	Medicine from Pharmacy or Chemist	88	29.1
	Total	285	94.4
Missing	System	17	5.6
Total		302	100.0

Food supplements 189 (62.6%) remained a major part of the meals of the respondents while one fortieth 8 (2.6%) took medicines from other clinics.

Table 10: Ever missed taking ARV medicines

Missing taking ARV medicines

	Frequency	Percent
Yes	165	54.6
No	137	45.4
Total	302	100.0

Over half 165 (54.6%) of the respondents do miss their anti-retroviral medicine.

Table 11: Respondents' confidants

Disclosure of HIV status to others

	Frequency	Percent
Yes	253	83.8
No	49	16.2
Total	302	100.0

Over two third 253 (83.8%) of the respondents disclosed their HIV status.

Table 12: Logistic Regression analysis

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.688	.122	31.836	1	.000	1.990

The odds of the significant variable show that male respondents were 1.99 times as likely as female counterparts to report willingness to disclose their HIV status.

Table 13: Omnibus test of model adequacy

Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	293.144	8	.000
	Block	293.144	8	.000
	Model	293.144	8	.000

The Omnibus test shows the adequacy of the model.

Table 14: Logistic regression variables

Variables in the Equation

		B	S.E.	Wald	df	Sig.
Step 1[a]	occupation	7.399	3428.804	.000	1	.001
	whowhat	-60.520	1830.675	.001	1	.974
	startingtreatment	-14.661	457.669	.001	1	.974
	timeofdrugs	156.284	8833.204	.000	1	.000
	Constant	29515.965	922725.402	.001	1	.974

a. Variable(s) entered on step 1: occupation, whowhat, startingtreatment, timeofdrugs.

Occupation and time of drug were two factors that affected the adherence to anti-retroviral treatment of these HIV patients. ($p < 0.05$)

V. Discussion Of Results

Over half of the respondents 201 (66.6%) were females while about one third 101 (33.4%) of the respondents were males.About half 127 (42.1%) of the respondents were sick before discovering their HIV status while only 26 (8.6%) discovered that they were HIV positive when they went for job recruitment exercise.Little above one third 104 (34.4%) of the respondents were self-employed while about one third 81 (26.8%) of the respondents were in business.About half 127 (42.1%) of the respondents were between ages 30 and 39 years while only 25 (8.3%) were between ages 20 and 29 years.One third of the respondents 98 (32.5%) of the respondents had secondary education, one fourth of the respondents 81 (26.8%) had university education while about one fifth 56 (18.5%) had polytechnic education.This is collaborated by the report of UN (2008). Over half 184 (60.9%) of the respondents were with their spouses while only one fortieth 8 (2.6%) were with their relatives.Over half 173 (57.3%) of the respondents lived very close to the health facility while about one fourth 121 (40.1%) lived far from the health facility.About one hundred percent 294 (97.4%) of the respondents

felt better since they commenced treatment.Food supplements 189 (62.6%) remained a major part of the meals of the respondents while one fortieth 8 (2.6%) took medicines from other clinics.Over half 165 (54.6%) of the respondents do miss their anti-retroviral medicine. Over two third 253 (83.8%) of the respondents disclosed their HIV status. This is in line with WHO report (2007). The odds of the significant variable show that male respondents were 1.99 times as likely as female counterparts to report willingness to disclose their HIV status.Occupation and time of drug were two factors that affected the adherence to anti-retroviral treatment of these HIV patients. ($p< 0.05$). This result is in line with that of Balogun et al. (2010).

VI. CONCLUSION

This study focused on attitude of HIV/AIDS patients to the intake of their medicines. This research work provided information on the bio – data of respondents – HIV/AIDS patients.. The work further provided an insight into comparing attitude of male and female HIV/AIDS patients in receiving treatment.Occupation and time of drugs were significant factors contributing to the adherenceof otherwise of the HIV/AIDs patients to the intake of their medicines.

VII. RECOMMENDATIONS

From the analysis and the results obtained, the following recommendations were made:

1. The HIV/AIDS patients should be allowed to work in any organisation or system that is convenient to them so as to enable them take their medicines as at when due.
2. A flexible time of taking the medicinesshould be encouraged.

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