DISCLOSURE OF HIV STATUS BY HIV POSITIVE PATIENTS ATTENDING ADULT ART CLINIC AT GOMBE STATE SPECIALIST HOSPITAL, GOMBE.

By

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AHMADU BELLO UNIVERSITY, ZARIA

NIGERIA

September, 2012

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September, 2012

DECLARATION

I declare that the work in the thesis entitled Disclosure of HIV status by HIV positive patients attending adult ART clinic at Gombe State Specialist Hospital, Gombe has been performed by me in the Department of Community Medicine under the supervision of Dr A. A. Aliyu

The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at any University.

.....	.....	.....
Name of Student	**Signature**	**Date**

CERTIFICATION

This thesis entitled **DISCLOSURE OF HIV STATUS BY HIV POSITIVE PATIENTS ATTENDING ADULT ART CLINIC AT GOMBE STATE SPECIALIST HOSPITAL; GOMBE** by Dankoli Raymond Salanga meets the regulation governing the award of the degree of Master of Public Health (MPH) in Field epidemiology of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

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ABBREVIATIONS

HIV	-	Human immune-deficiency virus
AIDS	-	Acquired immune deficiency syndrome
GSSH	-	Gombe State Specialist Hospital
WHO	-	World Health Organization
CDC	-	Center for Disease Control and Prevention
ART	-	Antiretroviral Therapy
ARV	-	Antiretroviral
UNAIDS	-	United Nations Programme on HIV/AIDS
QPOR	-	Prevalence Odds Ratio
AOR	-	Adjusted Odds Ratio
OR	-	Odds Ratio
CI	-	Confidence Interval
A.B.U	-	Ahmadu Bello University

ABSTRACT

Disclosure of HIV status especially to sexual partners is an important prevention goal. Many international organizations including UNAIDS, WHO and CDC are emphasizing the importance of HIV status disclosure. This study was undertaken to determine the prevalence of HIV status disclosure and the factors that are associated with disclosure of HIV status by HIV positive patients attending the adult ART clinic in Gombe State Specialist Hospital (GSSH)

This was a cross sectional descriptive study among adult HIV positive patients at GSSH. Study participant were sample using a systematic random sampling technique and interviewer administered structured questionnaire was used to collect data.

A total of 198 out of 200 respondents were interviewed yielding a response rate of 99%. There were more female (80.3%) respondents compared to male (19.7%). Majority (76.8%) of the respondents were between 20 and 39years old with a mean age of 32.9years. 60.1% of the respondents were married with majority (78%) of them in a monogamous family setting. The vast majority (97.5%) had disclosed their HIV status and majority (36.8%) of them disclosed to their spouses. 64% of the respondents had treatment supporter and spouses (42.9%) were their choice of a treatment supporter. Disclosure of HIV status was found to be associated only with young age (<40years) [AOR 38.16; 95% CI 2.42-602.61]. However, female gender [AOR 1.53; 95% CI 0.14-17.02] and being employed [AOR 9.76; 95% CI 0.64-148.65] are more likely to disclose HIV status. While being educated [AOR 0.69; 95% CI 0.07-6.74], short duration of infection (<1year) [AOR 0.18; 95% CI 0.01-3.17] and being married [AOR 0.31; 95% CI 0.02-4.23] make it less likely to disclose HIV status.

Disclosure of HIV status was high in the study population. Spouses were the most preferential choice of persons HIV statuses were disclosed to and also the most adopted as treatment supporter. HIV status disclosure should be made soon after diagnosis because of its importance especially to couples. This encourages family support and lessens stigmatization.

Key words: Disclosure Factors; HIV Status; Gombe State

CHAPTER ONE

1.1 BACKGROUND INFORMATION

HIV/AIDS represent the prototype of an emerging disease with its worldwide dramatic consequences.[1] The Acquired Immune Deficiency Syndrome (AIDS) is caused by two lentiviruses; types 1 and 2 (HIV-1 and HIV-2)[2,3]. AIDS was first recognized in the 1980's and is presently the leading cause of death in developing countries, it is believed that over 40million individuals have been infected with HIV of which about two-third live in sub-Saharan Africa[4] .

The HIV virus can be transmitted by sex, blood products, or from an infected pregnant woman to her infant and in sub-Saharan Africa, the predominant mode of transmission is heterosexual intercourse[1]. Despite the same major mode of transmission, there are extraordinary differences in the spread of HIV infection among African countries for reasons that are complex, multiple and poorly documented.[1] In general, the risk of transmission depends on the infectivity of the index person, the type of sexual intercourse and the susceptibility of the person thus exposed.

Disclosure of being HIV positive is a difficult and yet an important decision for all infected people[5,6]. However, it has also been identified to play a significant role in how individuals cope with their disease.[6,7] While disclosure can have positive effects on an individual's health, such as increased social support and decreased stress, it also has the potential for negative effects which are dependent upon the recipient's response. For the majority of individuals with HIV, disclosure is stressful.[8] There is a fear of rejection, discrimination and abandonment,[1] rather than the relief that is anticipated when one discloses to other, there are often regrets.[1] Regardless of the stress involved, the majority of people with HIV do eventually disclose to others.[1]

Non-disclosure of HIV status can be a risk for transmission of HIV infection. Some studies available on sexual relations within couple in sub-Saharan Africa have shown lack of prevention of sexual transmission of HIV within stable relationships.[9,10] Non-disclosure will not encourage the adoption of safer sex practices among regular sex partners and their sexual relationships are rarely protected because they are perceived as risk free.[9,10]

HIV/AIDS treatment programmes require treatment supporter, these are individuals identified by each HIV positive patients to assist them comply with their clinic schedule, drug intake and other HIV related activities. These treatment supporters could be spouse, family members, friends, colleagues etc. A good and well informed treatment supporter encourages their client to adhere to treatment protocol and follow up visits.

1.2 STATEMENT OF THE PROBLEM

HIV epidemic remain a public health concern and a threat to the socio-economic development of Gombe State, despite the persistent decline of adult prevalence. The dynamics, factors and drivers of the State epidemic are poorly understood because of dearth of strategic information.[43]

The State's surveillance system heavily relies on case reporting and national surveys. Equally, the data generated from case reporting is barely reliable and the findings of the national surveys are often presented by zones.

Obviously, HIV epidemic occurs as multitude, overlapping and changing micro-epidemics within any geographical entity. Based on the adult HIV prevalence, Gombe State HIV epidemic can be characterized as "generalized". However, like Nigeria and other West African countries, key population at higher risk contribute significantly, hence the State epidemic can be considered a "mixed type".[43]

The State's adult HIV prevalence persistently declined from 8.2% in 2001 to 4.0% in 2008. Higher prevalence amongst urban pregnant women of age group 15-24years (5.3%) indicates that new infections occur.

Paucity of strategic information does not allow comprehensive understanding of the State's epidemic among different sectors, age groups and sexes. Equally, the dynamics of the epidemic has not been fully defined. Nonetheless, drawing from the national picture, majority (42.3%) of new infections that occurred in 2008 in the State might have arisen from low-risk heterosexuals and 22.7% from key population at higher risk.[44]

Since the inception of HIV care, treatment and support programme at the Gombe State Specialist Hospital in 2006, there are more than 5000 adult who have been enrolled into the programme.

During adherence counseling sessions people living with HIV/AIDS are encouraged to disclose their HIV status to their confidant who will serve as their treatment supporter. This treatment supporter could be a spouse, friend, mother, father, child etc. Despite this continuous counseling, Some HIV patients don't have treatment supporter and some have refused to disclose their HIV status to their sexual partners despite engaging in unprotected sex.

It has been discovered that risky sex without disclosure of serostatus is not uncommon among people with HIV [11]. Seropositive individuals who do not disclose their status to sexual partners are often portrayed as dangerous pariahs[12]. In the hospital where this study was conducted, doctors have received phone calls from husbands who are HIV positive and are receiving treatment pleading with them (Doctors) not to let their spouses know that they (husband) are HIV positive. This attitude demonstrates how individuals who are HIV positive can infect a series of unsuspecting partners.

For those who choose to disclose their HIV status, they are often faced with the consequence of stigmatization, rejection, abandonment and divorcement to mention a few.

1.3 JUSTIFICATION OF THE STUDY

The study will be addressing the subject of disclosure and non-disclosure since no previous study has been carried out in Gombe State or GSSH despite the large number of HIV patient receiving care and treatment in that facility. This study hopes to bridge the knowledge gap on issues of disclosure and non-disclosure in the state. Non-disclosure issues leading to loss to follow up will be identified and solution provided through client counseling.

A study carried out in South Africa by Simbayi *et al* shows that Sexual transmission risk behaviours were reported mostly in people who had not disclosed their HIV status to sex partners. The relationship between engaging in unprotected intercourse and not disclosing HIV status to partners was most apparent when partners were of unknown HIV status.[53]

A recent mathematical modeling analysis showed that serostatus disclosure reduced the risk of HIV transmission by 17.9% to 40.6% relative to non-disclosure. Increasing the disclosure rate from the base-case value of 51.9-75.7% produced a 26.2-59.2% reduction risk[52].

Through feedback mechanism the participant will be health educated on the need to adopt safer sex practices especially among couples when disclosure issues are properly addressed.

The study is expected to generate some data. The data from this study will form a basis for further and future studies that relate to HIV status disclosure.

1.4 GENERAL AND SPECIFIC OBJECTIVES

1.4.1 GENERAL OBJECTIVE: To determine disclosure factors among HIV positive patients attending adult ART Clinic at GSSH.

1.4.2 SPECIFIC OBJECTIVES

1. To determine the prevalence of disclosure of HIV Status.
2. To identify factors responsible for disclosure of HIV status
3. To determine interval of time between first diagnosis of HIV Status and disclosure of HIV status.
4. To assess the preference of the first choice person to disclose HIV status.
5. To determine the percentage of the treatment supporter who are aware of the HIV diagnosis of their client.

CHAPTER TWO

2.0 LITERATURE REVIEW

Since the first reported case of AIDS (Acquired Immunodeficiency Syndrome) in America 1981, the number of people infected with the Human Immunodeficiency Virus (HIV), which causes AIDS has risen steadily. By the end of 2006, nearly 40 million people were infected; 25 million of them are in Sub-Saharan Africa.[13] HIV/AIDS in Nigeria remain a major public health problem, Nigeria is Africa's most populous nation and is home to more people living with HIV than any other country in the world except South Africa and India[13]. Although the prevalence rate is lower than it is in South Africa, it is estimated that about 2.9 million people are living with the virus in Nigeria[14].The prevalence rate has increased progressively since the first reported case of HIV in Nigeria[14]. HIV prevalence among adults aged 15-49 years increased from 1.8% in 1991 to 5.8% in 2000[15] and in 2005,declined to 3.9%[14,16].

In Africa, most sexual transmission of HIV is between partners in stable relationships – many such couples do not adopt measures that prevent viral transmission, such as knowing the HIV status of both partners and using condoms if one partner is HIV positive[9,10].

In population with a high prevalence of HIV infection, those who engage in conjugal sexual relationship are at risk of infection. HIV testing of each partner and conjugal exchange of information on serostatus remain the only way to determine the risk of HIV transmission in conjugal sexual relationships. Nonetheless, HIV testing has remained infrequent in Africa.[17]

Diminishing the spread of HIV is clearly an important public health matter and understanding sexual relationships is one pivoted aspect of HIV prevention efforts. Disclosure of HIV status

particularly to sexual partners is important because it permits partners to be included in the decision making process in either allowing or not allowing unsafe behavior to occur.

Rates of disclosure of HIV status by HIV positive individuals to their sexual partner have showed various rates, some are remarkably low while others are high. For example, Hay et al in a study carried out in the University of California in San Francisco among gay men[18] reported 98% of their sample disclosed to lovers/partners, while Marks et al reported disclosure rate to sexual partner of 48% among seropositive men in Los Angeles.[19] Researchers have attempted to explain these variations by reporting correlates with variables such as ethnicity [20], degree of symptomatology,[21] level of relationship commitment (casual or steady)[7] or number of sexual partners [22]. For example, researchers have reported the likelihood of disclosure decreased in direct proportion to the number of partners[22]. Similarly, Perry et al, 1994 reported individuals were less likely to inform casual partners than steady partners of their HIV status[3].

One way to conceptualize reasons for disclosure or non-disclosure is with the consequences theory of HIV disclosure[23]. This theory purports that persons with HIV are likely to inform significant others and sexual partners once the rewards for disclosing outweighs the associated cost.

Disclosure of HIV status to significant others either lovers, family or friend has been shown to be a potent stressor, as individuals living with HIV/ AIDS might fear negative reactions such as abandonment, discrimination, accusation of infidelity, blame, rejection or violence.[6,24,21]. However the HIV person's balance of potential risks and benefits of secrecy versus disclosure has been shown to be fundamental in coping with an HIV diagnosis and for accessing emotional and social support. Disclosure might also be considered to be an expression of responsibility towards a spouse or sex partner.[6]

Progression of HIV, might precipitate disclosure due to visible signs of diseases or an urgent need for emotional support [23, 21]. Other determinant of disclosure behaviour include (i) cultural factors. People with Latino ethnicity in the USA, either homo/bisexual males or heterosexual sub-groups, appear less likely to disclose their status to their circle of family or friends than whites or African – Americans [20, 27]. Friends appear to be closer confidants than immediate families among gay men, while relatives might be chosen as confidants over spouses among HIV positive African women[28]. (ii) Fear of being a burden to the immediate family or stigma associated with HIV infection might force persons living with HIV/AIDS (PLWHA) to keep their disease secret from their social network, as has been shown in Asian population [29, 30]. (iii) Age, younger women (<24years) were more likely to disclose to sexual partners than older women [31, 32]. (iv) Education: Issiaka et al found that women with higher level of education were more likely to share the result of their HIV status with their partner than women who are illiterate[33]. (V) Socioeconomic status: - Farquhar et al found women of lower socioeconomic status had higher disclosure rate than women of higher socioeconomic status[32]. The finding of Issiaka et al and Farquhar et al appears to be contradictory. It is expected that a womans educational level is directly related to the socioeconomic status. It therefore means that higher educational level and high socioeconomic status will either have a higher disclosure rate or lower rates. (VI) Length of relationship:- Antelman et al also found out that women who had been in relationship for a period of time (define as > 2 years) were more likely to disclose than women who had been in relationship for a shorter duration[28]. (VII) Gender;- A study conducted in South Africa shows male were found to disclose their HIV status to their partner than females[40]. In contrast another study in South Africa revealed that male sex is associated with non-disclosure of HIV status[41]. (VIII) Number of Sexual Partners:- Women who reported fewer sexual partners and who personally knew someone with HIV/AIDS were also more likely to disclose[28].

Disclosure of HIV status to sexual partners is an important prevention goal emphasized by the WHO[34] and the Centers for Disease Control and Prevention CDC[35] in their protocols for HIV testing and counseling. Disclosure offers a number of important benefits to the infected individual and to the general public. Disclosure of HIV test results to sexual partners is associated with less anxiety and increased social support among many women[36]. In addition, HIV status disclosure may lead to improved access to HIV prevention and treatment programmes, increased opportunities for risk reduction and increased opportunities to plan for the future. Disclosure of HIV status also expand the awareness of HIV risk to untested partners, which can lead to greater uptake of voluntary HIV testing and counseling and changes in HIV risk behavior.[37,38,39] From some Literatures reviewed it shows that risk behaviour changes among couples where both partners are aware of their HIV serostatus.[37,38,39] In addition, disclosure of HIV status to sexual partners enables couples to make informed reproductive health choices that may ultimately lower the number of unintended pregnancies among HIV positive women[38].

CHAPTER THREE

3.1 Description of Study Area

Gombe State is located in the North-East geopolitical zone of Nigeria; it was carved out of the former Bauchi State on October 1st 1996. The state has a land area of 20,265sqkm located between latitude 9° 30' and 12° 30' North and longitude 8° 45' and 110° 45' East. It is bounded by Yobe state to the North, Taraba and Adamawa States to the South, Borno State to the East and Bauchi State to the West. The state has eleven Local Government Areas, it is made up of people of diverse ethnic, cultural and religious backgrounds and a projected population of Gombe state is 2,755,387.[43]

This study was conducted in Gombe State Specialist Hospital (GSSH), this was initially a General hospital but was upgraded to a Specialist hospital in 2005. GSSH has a 300 bed capacity and is located in "Jekadafari" community which is in the centre of Gombe town the state capital. GSSH is the apex secondary health facility in the state; it serves as a referral hospital to all state owned health facilities. The hospital has a Medical Director the head; other members of the hospital management include Head of administration and finance, Head of diagnostics, Head of Nursing services and Head of Pharmaceutical services. There are four (4) main clinical departments; these are Medicine, Surgery, Paediatrics and Obstetrics and Gynaecology. In addition to other medical services, the hospital provides a comprehensive HIV services which include voluntary counseling and testing (VCT), prevention of mother to child transmission (PMTCT), Antiretroviral therapy (ART), support group services and treatment of opportunistic infections.

There are more than 4,000 patients enrolled into HIV/AIDS care and treatment services of the hospital which started in 2006. In 2007, International Centre for AIDS Prevention (ICAP) an Implementing Partner came to support the activities of HIV/AIDS in the hospital. Drugs and laboratory services were provided free to all HIV patients in the hospital.

3.2 Study Design

A cross sectional study design was adopted for this study.

3.3 Study Population

The study population includes all individuals 16years and above who had been diagnosed as being HIV positive and had been enrolled into the hospital HIV/AIDS care programme and are attending the adult ART clinic.

3.4 Sample Size Determination

The sample size for the study was calculated using this formula

$$n = \frac{z^2 x P x (1-P)}{d^2}$$

Where n = sample size

Z = value of the standard distribution corresponding to a significant level of α (1.96 for a 2 sided test at 0.05 level).

P = expected proportion in the population (Prevalence)

d = absolute precision which is significant at 0.05.

Since one of the factors associated with disclosure of HIV status is gender, the result of a previous study in Jos, Nigeria showed disclosure among women attending PMTCT clinic to be 89%[42].

Therefore $n = \frac{1.96^2 x 0.89 x 0.11}{0.05^2}$

$n = \frac{3.8416 x 0.89 x 0.11}{0.0025}$

$n = 150.44$

After addition of 10% non-response rate the total sample size used was approximated to 200.

.

3.5 Sampling Method

A systematic random sampling method was used to select study participants. The Adult ART clinic runs every Monday to Thursday with an average of 40 patients booked per clinic day. With a sample size of 200, the sampling interval was calculated by dividing 200 by 40.

Thus; sampling interval is 200/40 = 5

The enrollment register of all the adult patients enrolled into the HIV programme of the hospital was used to select the participant using their unique ID number. From the booking register of each clinic day, the first participant was randomly selected. Thereafter, the next participant was selected after an interval of five numbers. After the selection process from the register was `completed, the patients were identified based on their unique ID number at the clinic. The

purpose of the study was explained to the identified participant and those who consented were administered questionnaire.

3.6 Data collection:

Some staffs of the hospital were trained as research assistants. They were trained on how to obtain consent from participants, improve response rate and also how to effectively administer questionnaire in order to obtain quality data.

Data was collected using an interviewer administered questionnaire after individual consent was obtained.

3.7 Data Analysis

Data were edited, cleaned, coded, entered and analyzed using Epi-Info 6 version 3.5.2 and Microsoft Excel. Descriptive statistic was calculated to determine rate of disclosure and other outcomes. Bivariate analyses were done to determine the presence of a statistically significant association between dependent variables and the outcome variable. To identify independent associated factors, multiple logistic regression was employed.

A logistic model was produced with disclosure status as outcome variable. All the dependent variables from the bivariate analyses were included in the logistic model. Test result was considered as significant if P-value ≤ 0.05.

3.8 Ethical Considerations

Letter was sent to Gombe State Specialist Hospital from the Department of Community Medicine A.B.U. Zaria for permission to conduct the study. Ethical clearance was received from the management of the hospital to carry out the study.

The study was carried out among adult population. Nevertheless, the purpose of the study was explained to each participant and a formal consent was signed by each participant before data were collected. Participation was voluntary and confidentiality was highly maintained.

3.9 Limitation of the Study

The study focused on only HIV-Positive persons who are receiving medical care at the GSSH. The reference population did not include HIV-Positive persons who did not know they were infected or those who had been diagnosed but were not receiving medical care for HIV.

Data was self-reported; therefore some HIV-Positive persons may be reluctant to admit that they engage without informing their partners, in sexual behaviours that may transmit HIV. (Reporting Bias)

CHAPTER FOUR

Below is the result of the study carried out to determine disclosure factors among HIV positive patients attending adult ART Clinic at Gombe State Specialist Hospital.

Table 1: Socio-demographic profile of the respondents

Profile	Frequency	Percentage
Age (years)		
< 20	4	2.0
20-29	74	37.4
30-39	78	39.4
40-49	27	13.6
50-59	11	5.6
60+	4	2.0
Total	***198***	***100.0***
Gender		
Female	159	80.3
Male	39	19.7
Total	***198***	***100.0***
Religion		
Christianity	73	36.9
Islam	125	63.1
Total	***198***	***100.0***
Educational Level		
None	7	3.5
Arabic/Quaranic	72	36.4
Primary	31	15.7
Secondary	48	24.2

Tertiary	40	20.2
Total	***198***	***100.0***
Tribes		
Hausa	32	16.2
Fulani	49	24.7
Tangale	43	21.7
Tera	13	6.6
Waja	8	4.0
Tula	7	3.5
Bolawa	2	1.0
Others	44	22.2
Total	***198***	***100.0***
Occupation		
Student	4	2.0
Civil Servant	36	18.2
Farming	8	4.0
Business/Trading	45	22.7
Self employed	49	24.7
Unemployed	56	28.3
Total	**198**	**100.0**
Marital Status		
Single	29	14.6
Married	119	60.1
Widowed	30	15.2
Separated	9	4.5
Divorced	11	5.6
Total	**198**	**100.0**

There were more female (80.3%) respondents than male (19.7%). The mean age is 32.9years while the median and modal ages were both 30years. Majority (76.8%) of the respondents were between 20-39 years. 55.6% of the respondents had below secondary education while 28.3% of the respondents were unemployed. Majority (60.1%) of the respondents are married.

Table 2 Prevalence of disclosure and Non-disclosure of HIV Status among respondents

Disclosure Status	Frequency	Percentage
Yes	193	97.5
No	5	2.5
Total	**198**	**100.0**

About 98% of the study population had disclosed their HIV Status.

Table 3. Association of disclosure factors and disclosure status.

Disclosure Factors		Disclosure Status		Total	Odds Ratios	95% Confidence Interval	P-value
		Yes (%)	No (%)				
Marital Status	Married	115 (96.6)	4 (3.4)	119	0.37	0.01-3.83	0.34
	Unmarried	78 (98.7)	1 (1.3)	79			
Gender	Female	156 (98.1)	3 (1.9)	159	2.81	0.23-25.29	0.26
	Male	37 (94.9)	2 (5.1)	39			
Educational Level	< Secondary	36 (94.7)	2 (5.3)	38	0.64	0.07-7.94	0.47
	≥Secondary	85 (96.6)	3 (3.4)	88			
Age	<40years	155 (99.4)	1 (0.6)	156	16.31	1.53-808.43	0.008
	≥40years	38 (90.5)	4 (9.5)	42			
Occupational Status	Employed	127 (97.7)	3 (2.3)	130	1.28	0.11-11.47	0.56
	Unemployed	66 (97.1)	2 (2.9)	68			
Duration of Infection	< 1 year	38 (97.4)	1 (2.6)	39	0.98	0.09-49.55	0.67
	≥ 1 year	155 (97.5)	4 (2.5)	159			

Age <40years is significantly associated with disclosure of HIV status in the study population. However, being a female gender and also being employed makes it more likely to disclose ones HIV status.

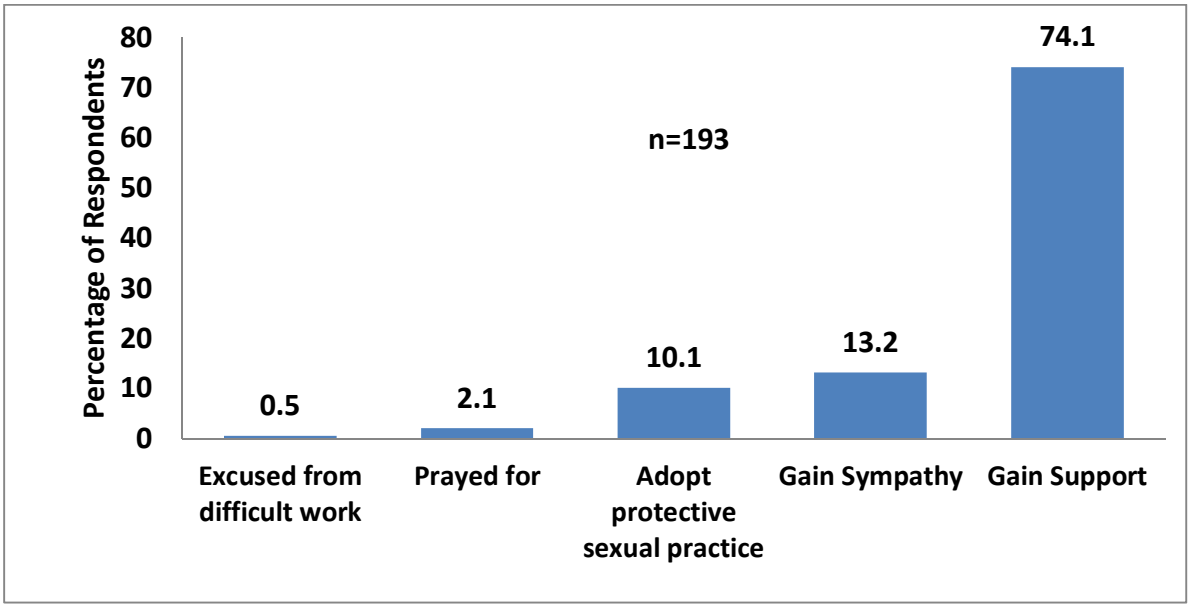
Unconditional logistic regression

Table 4. Factors associated with disclosure of HIV status

Term	Adjusted Odds Ratio	95% Confidence Interval	P-Value
Age group (<40years/≥40years)	38.16	2.42 - 602.61	0.0097
Educational Status (Educated/Uneducated)	0.69	0.07 - 6.74	0.7507
Gender (Female/Male)	1.53	0.14 - 17.02	0.7289
Duration of infection time (<1year/≥1year)	0.18	0.01 - 3.17	0.2409
Marital Status (Married/Unmarried)	0.31	0.02 - 4.23	0.3787
Occupational Status (Employed/Unemployed)	9.76	0.64 - 148.65	0.1011

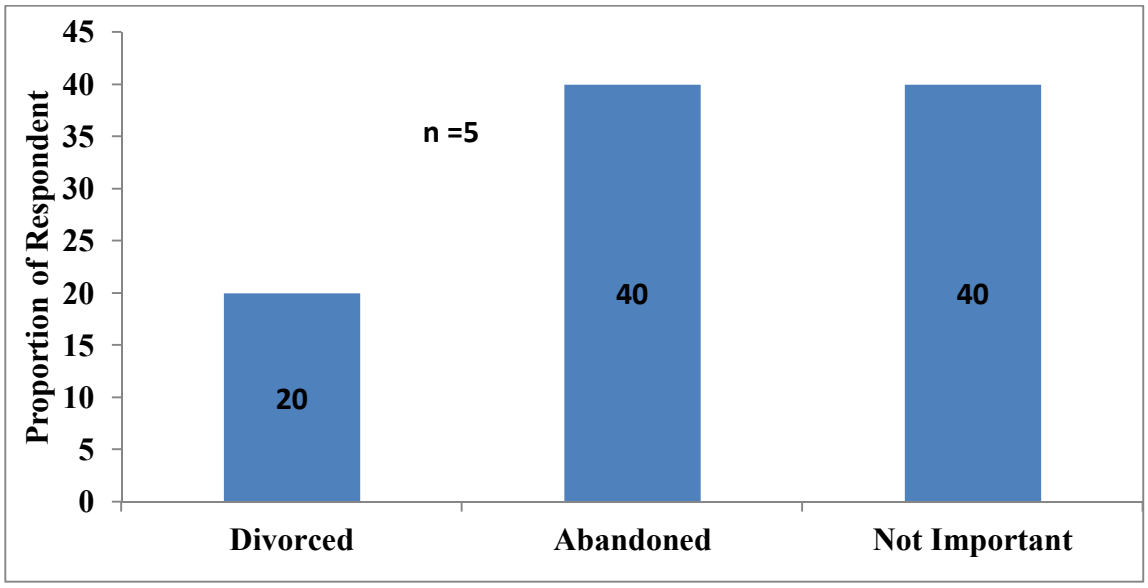
The table above shows that age <40years have remained an independent factor in disclosure of HIV status, while being female and being employed makes more likely to disclose ones HIV status.

Fig. 1 Reasons for HIV Status disclosure by the respondents



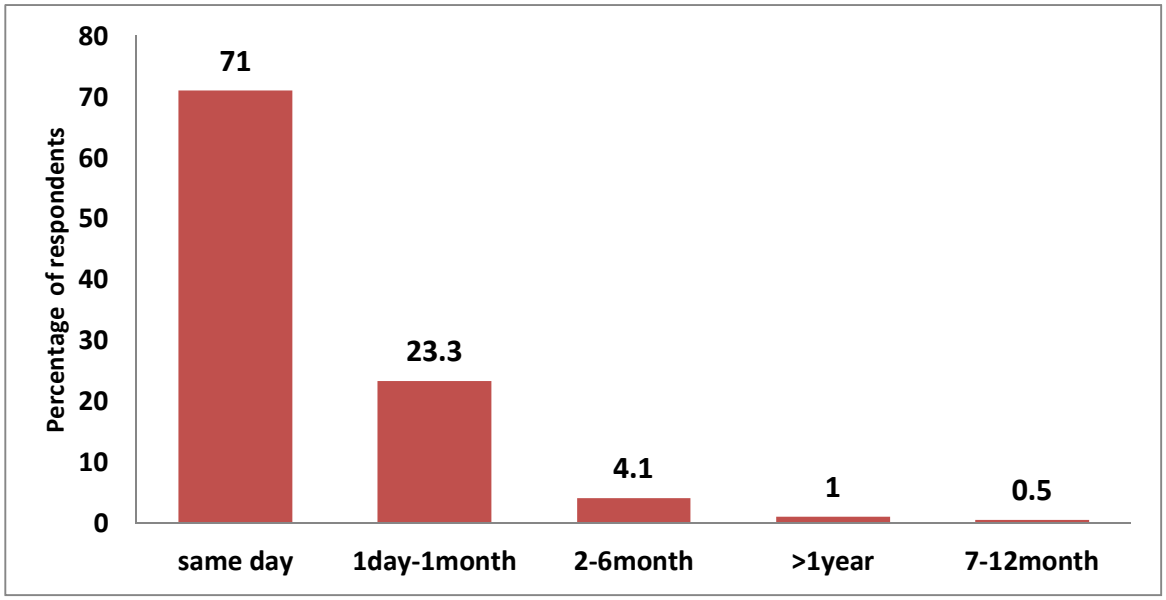
Most (74.1%) of the respondents disclose their HIV Status because they want to gain the support of their confidant.

Fig. 2 Reasons for non-disclosure of HIV status by respondents



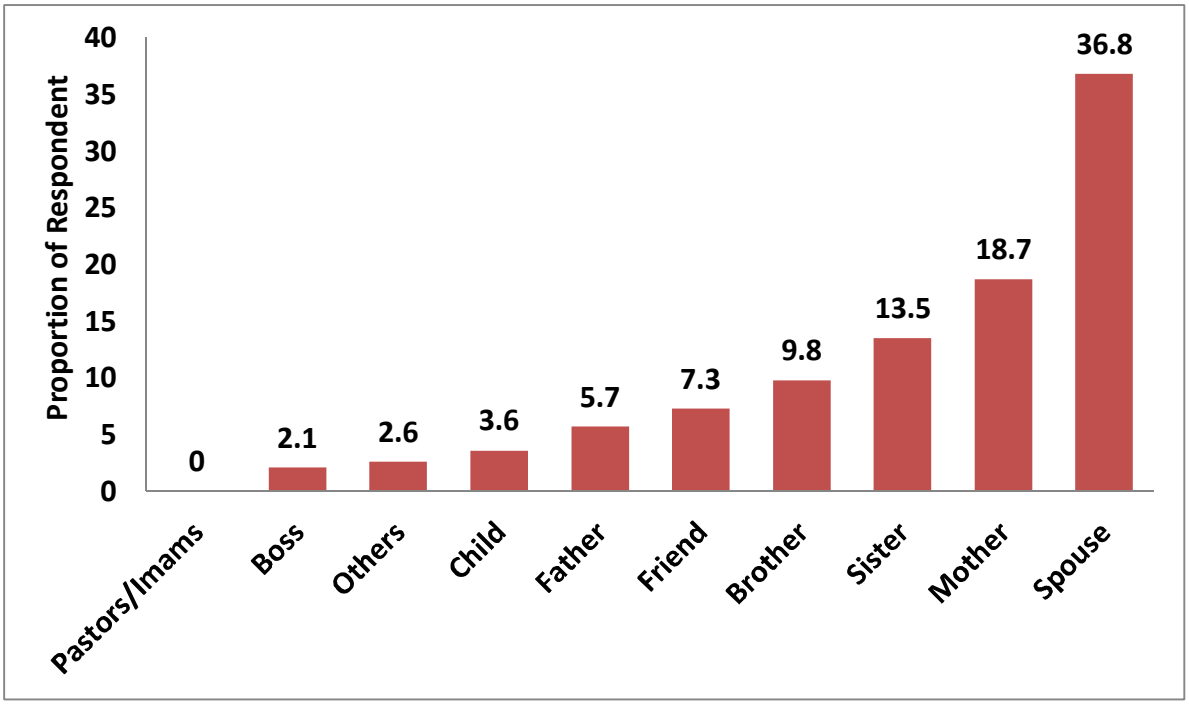
Fear of abandonment and disclosure not an important issue are the main reason why respondents did not disclose their HIV status

Fig. 3 Length of time it took to disclose HIV status to the first person



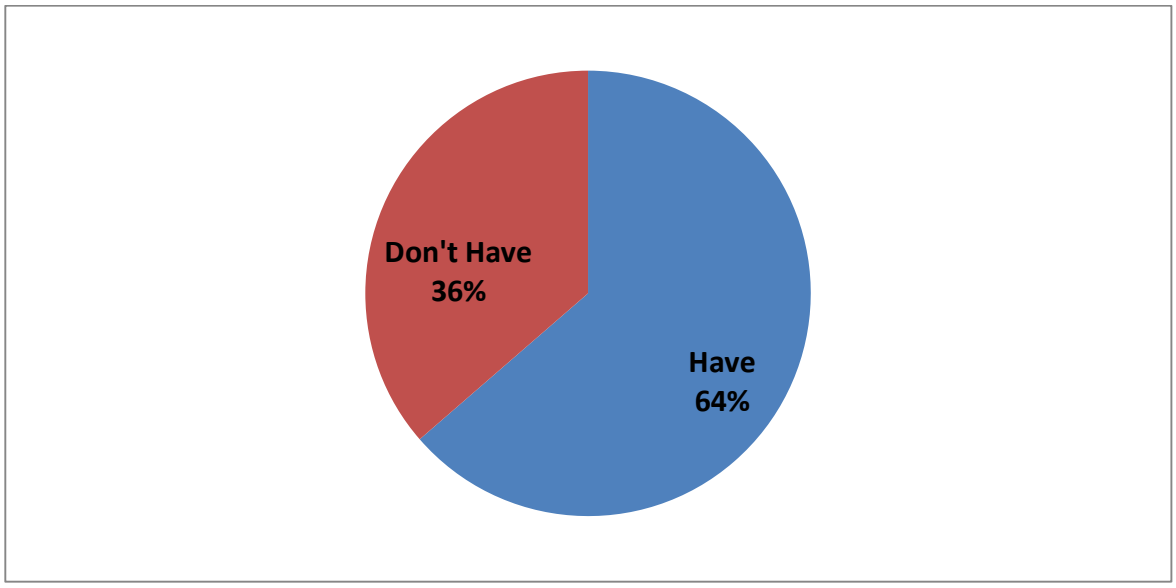
Most (71%) of the respondent disclose their HIV status the same day they were diagnosed

Fig. 4 Preference of choice of first person to disclose HIV status



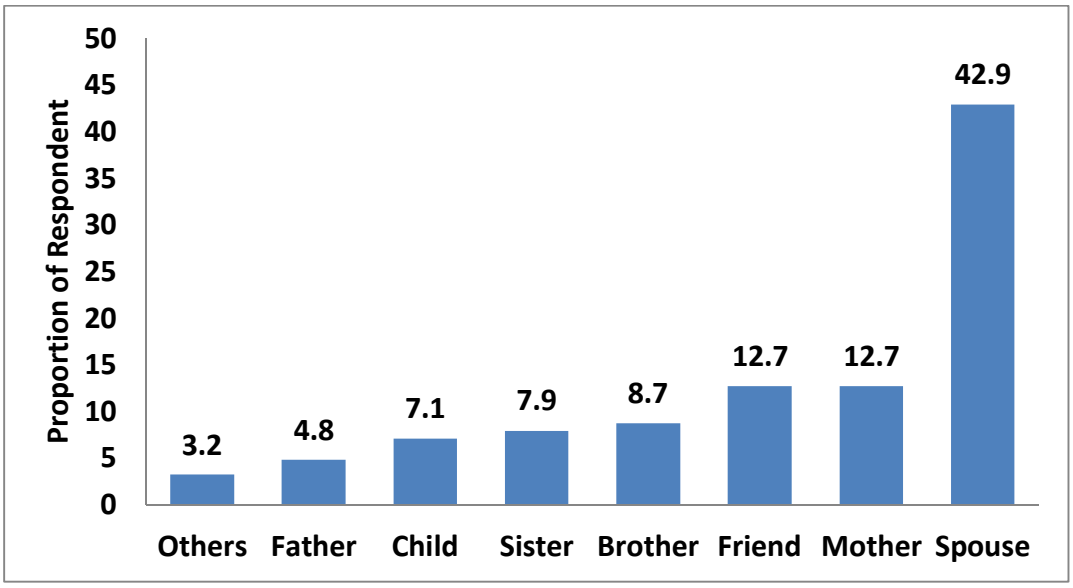
Most respondents (36.8%) preferred to disclose their HIV status to their spouses

Fig. 5. Proportion of respondents with treatment supporter



About 64% of the respondent have treatment supporter

Fig. 6 **Choice of treatment supporter**



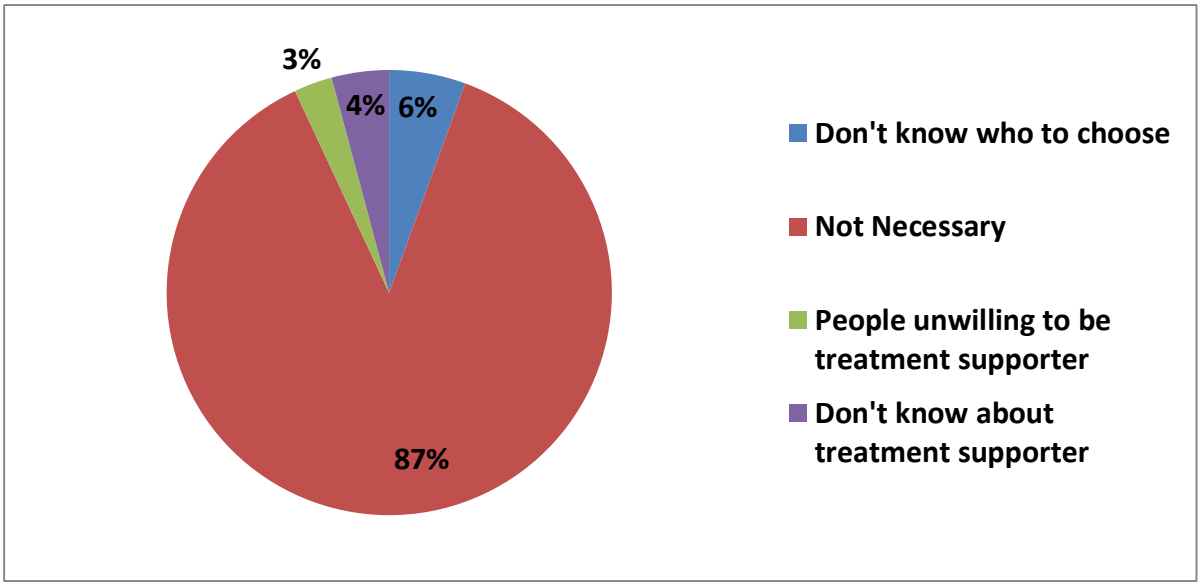
Most respondent (42.9%) preferred their spouses as their treatment supporter

Table 5 Frequency of treatment Supporters who are aware of the HIV status of their client as reported by the client themselves.

Aware of HIV Status of your Client	Frequency	Percentage
Aware	114	99.1
Not aware	1	0.9
Total	**115**	**100.0**

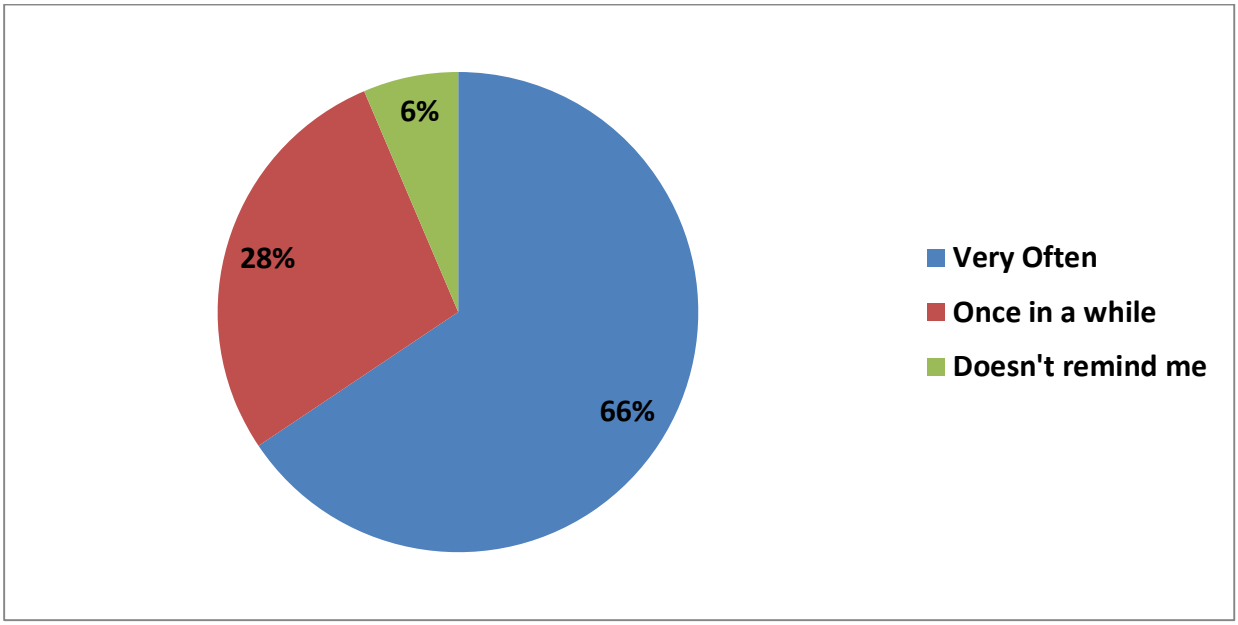
Almost all (99.1%) of the respondent are aware of the HIV status of their Client.

Fig. 7. Reasons why some respondent don't have treatment supporter



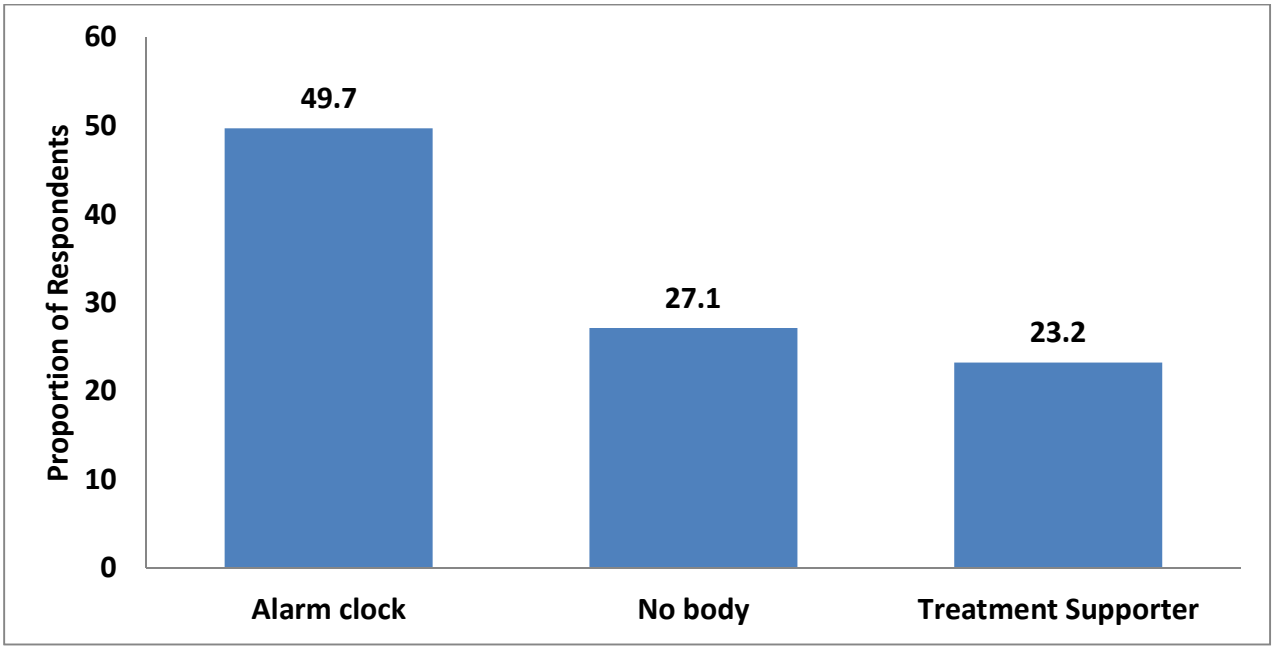
Majority of the respondents (87%) don't have treatment supporter because they consider it not necessary.

Fig. 8 Pie chart showing how often treatment supporter remind their client of clinic appointment



Most respondents (66%) were very often reminded of their clinic appointment by treatment supporter

Fig.9 Things that reminds the respondents the time to take their medication



About 50% of the respondents use alarm clock to remind them of the time to take their medication

Table 6: Proportion of respondents engage in unprotected sex

Sexual Practices	Frequency	Percentage
Unprotected sex	46	23.2
Protected sex	152	76.8
Total	**198**	**100.0**

Less than 25% of the respondents were still engaged in unprotected sexual practice

CHAPTER FIVE

There were a total of 200 questionnaires that were distributed to respondents but 198 were finally analyzed giving a response rate of 99%. Kebede et al[46] had similar high response rate in their study. The high response rate in this study may be due to the training on improving compliance and response rate the research assistants received prior to data collection.

Despite the common perception that people diagnosed with HIV often do not tell others about their status, majority (97.5%) of respondents in this study had disclosed their HIV status. This finding is in agreement with the studies of Kim Bouillon et al[26] in the Caribbean region and that of Sagay AS, et al [42] in Northern Nigeria and Kebede et al[46] in Southwest Ethiopia who reported HIV disclosure rates of 84.6%, 89% and 94.5% respectively. However, some studies reported lower disclosure rate, Issiaka et al[33] and Nebie et al[47] in Burkina Faso reported a disclosure rates of 31.8% and 17.6% respectively. The high disclosure rate in this study could be as a result of the ongoing adherence counseling sessions that encourage the HIV positive patients to disclose their status.

The study explored the socio-demographic characteristics of the respondents vis a vis its influence on the disclosure attitude of HIV positive patients. In the univariate analysis, this study revealed more preponderance of female (80.3%) than male (19.7%) among the respondents. This is in consonant with the gender inequality prevalence of HIV in Gombe state where the prevalence amongst men is 2.2% and women is 4.8%.[43] Furthermore, according to the United Nation Human Development report on Nigeria, the burden of HIV infection in Nigeria is borne by young people with more females affected than males.[45] Although gender was not statistically significant factor for HIV status disclosure in our study, however, female gender had an increase

likelihood of disclosure than male (POR 2.81; 95% CI, 0.23-25.29) as shown in Table 3. This finding agrees with the study of Kim Bouillon et al[26] where male gender had lower disclosure rate. In contrast, a study in South Africa shows male were found to disclose their HIV status than female[40]

Age is an important factor in the spread of HIV/AIDS. The productive age groups are mostly affected. The finding of this study supports the clustering of the respondent in the actively productive age group. About 75% of our respondents fell within the age bracket of 20-39years. In the bivariate analysis, age was the only factor that was statistically significantly associated with disclosure of HIV status. Individuals with ages less 40years (<40) were more likely to disclose their HIV status than those more than 40years (≥40). A multivariate analysis was done using an unconditional logistic regression to correct for any confounding effect. Age <40years remained as the independent factor for disclosure of HIV status (Table 4) in the study population. Our findings is in consonant with the studies of both Farquhar et al[32] and Galliard et al[31] which showed that younger age group were more likely to disclose their HIV status than older age group.

More than 60% of our respondents were married with about 80% of them in a monogamous family setting. Although marital status was not statistically significantly associated with HIV disclosure in both bivariate and multivariate analysis, the prevalence and adjusted odd ratios (Tables 3 and 4) shows that the married were less likely to disclose their HIV status compared to the unmarried. The implication of this is that, the HIV negative partners may be infected if disclosure is not done and unprotected sexual practice is adopted by couples. Nevertheless, less than 25% of our respondents were engaged in unprotected sex (Table 6).

Considering the fact that occupational status is often used as a proxy for socio-economic status, About one third of the respondents were not gainfully employed. Farquhar et al[32] in their study found out that women of low socio-economic status disclose their status more than women of higher socio-economic status. On the contrary, our studies revealed that the employed that were assumed to be of high economic status were more likely to disclose their HIV status than the unemployed (Table 3 and 4) The implication of this finding is that because the unemployed are a vulnerable group because of their financial incapacitation, the risk for the spread of HIV will increase.

This study also evaluated educational level as a factor that is associated with HIV status disclosure. Only 3.5% of our respondent had no formal education. However, for the purpose of bivariate analysis, the respondents were classified into two groups; a) below secondary b) secondary and above level of education. This study showed that those with below secondary education (low level of education) are less likely to disclose their HIV status than those with high level of education (POR, 0.64; 95% CI 0.07-7.94; AOR 0.69. 95% CI 0.07-6.74). This implies that the higher the level of education the more likelihood of HIV status disclosure. This study finding is similar to that of Issiaka *et al* who found that women with higher level of education were more likely to disclose their HIV status than women who were illiterate.

Another important factor that influences disclosure of HIV is duration of illness. In both bivariate and multivariate analyses, those whose duration of infection were less than one year were less likely to disclose their HIV status compared to those whose duration of illness were more than one year (POR, 0.98; 95% CI 0.09-49.55 and AOR 0.18; 95% CI 0.01-3.17). This is in agreement with the study of Antelman et al[28] who found that HIV disclosure increases with the

duration or length of time since diagnosis of HIV. Those who had been diagnosed earlier disclose their HIV status much more.

In this study, majority (74.1%) of the respondent choose to disclose their HIV status because they want to gain the support of their confidant (Fig. 2) in managing their disease condition. This finding is similar to that of Kirshenbaum and Nevid,[48] Serovich et al[23] and Simoni et al[27] who found out that women who have lived with the disease longer are more likely to disclose their HIV status to obtain support surrounding their disease. On the other hand, those who do not disclose their HIV status is for the fear of abandonment and some consider disclosure not important (Fig.3)

This study also revealed that majority of the respondents (71%) disclosed their HIV status the same day they were diagnosed and is consistent with the findings of Owolabi and Daniel.[49] Regarding whom to disclose the HIV status to, most (36.8%) prefer their spouses and is in agreement with the report of earlier work in Nigeria.[49] There seems to be a paradigm shift from preferential disclosure to religious/spiritual leaders as shown in earlier study in Nigeria[50,51] to disclosure to spouses and family members (fig. 5).

The proportion of respondent with treatment supporter in our study was 63.6% and almost all (99.1%) of them were aware of the HIV status of their client. In addition, most respondents (42.9%) prefer their spouses to be their treatment supporter. This finding was very encouraging, as it is an indication of an effectiveness of adherence counseling where HIV positive patients were counseled to have treatment supporter. These treatment supporters have the responsibility of reminding the HIV patients their next clinic appointment and the time to take their medications (ARVs). This study showed that most (66%) of the respondents were very often reminded by treatment supporter about their clinic appointment (fig.9). However, in terms of

reminding the patient the time to take their medication, majority of the respondent were reminded by alarm clock (49.7%) compared to treatment supporter (23.2%). This finding is not surprising because most ARV medication is twice daily drug and time bound couple with human factors. Therefore, it is expected that alarm clock will do it better.

CHAPTER SIX

6.1 Conclusion

The result of this study revealed that majority of HIV positive patient at GSSH had disclosed their HIV status. Disclosures were made frequently to spouses and also spouses were often used as treatment supporter. Of all the factors analyzed as being responsible for disclosure of HIV status, younger age (<40years) was identified as the only statistically significant factor associated with disclosure of HIV status. The study also showed that most participants disclosed their HIV status the same day they were screened and diagnosed to be HIV positive.

6.2 Recommendation

Based on this study and also a recent mathematical modeling analysis which showed that serostatus disclosure reduced the risk of HIV transmission by 17.9% to 40.6% relative to non-disclosure. Increasing the disclosure rate from the base-case value of 51.9-75.7% produced a 26.2-59.2% reduction risk[52]. Therefore it is recommended that;

1. Counseling of HIV patients to disclose their status should be continuous as it is being done in Gombe State Specialist Hospital.
2. Relevant stakeholders should encourage furthering of education because the study showed that those with above secondary level of education are more likely to disclose their HIV status.
3. Youth and women empowerment programmes of the Government should be encouraged. The study revealed that the employed (socioeconomically stable) are more likely to disclose their HIV status than the unemployed.

4. Unprotected sex among individuals who had not disclosed their HIV status should be discouraged by all and sundry.
5. HIV positive patients who are yet to have treatment supporter should be encouraged to have one because of its importance.

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APPENDIX 1

QUESTIONNAIRE ON DISCLOSURE OF HIV STATUS BY HIV POSITIVE PATIENTS ATTENDING ADULT ART CLINIC AT GOMBE STATE SPECIALIST HOSPITAL, GOMBE.

I am a post graduate student in the Department of Community Medicine, Faculty of Medicine Ahmadu Bello University Zaria. I am conducting a research on the above topic. This questionnaire is designed to determine the factors responsible for self disclosure or non-disclosure of HIV status by HIV positive patients attending the adult ART clinic of Gombe state specialist Hospital (GSSH). The findings from this research will be used to make recommendations on stigma reduction, consequences of non-disclosure of HIV status and improve on issues of lost to follow- up. The information you provide will be anonymous (i.e. your name will not be recorded) and cannot be traced back to you.

I hereby solicit your co-operation in filling this questionnaire. Your response will be treated with utmost confidentiality. Thanks for your anticipated co-operation.

Do you agree to participate in the study? YES [ ] NO [ ]

Signature/Thumb print …… Unique ID NO……..

Interviewer's Name…… Questionnaire's NO……

1. How old are you? …….. years
2. Sex?
   Male [ ] Female [ ]
3. Tribe?

   Hausa [ ]
   Fulani [ ]
   Yoruba [ ]
   Igbo [ ]
   Tangale [ ]
   Waja [ ]
   Tera [ ]
   Tula [ ]
   Bolawa [ ]
   Others(specify) …….
4. Religion?
   Christianity [ ] Islam [ ] Traditional [ ]
5. Educational status?
   None [ ] Arabic/Quaranic [ ] Primary [ ]
   Secondary [ ] Tertiary [ ]
6. Occupation?
   Student [ ] civil servant [ ] Farming [ ]
   Business/Trading [ ] self employed [ ] unemployed [ ]
7. Marital status?
   Single [ ] Married [ ] Widowed [ ]
   Separated [ ] Divorced [ ]
8. If married, what is your family type?
   Monogamous [ ] Polygamous [ ]
9. When did you first know you have HIV/AIDS?
   <1year [ ] 1- 3years [ ] 4- 6years [ ]
   >6years [ ]
10. What disease/condition made you to go for HIV testing?
    Recurrent fever [ ] Recurrent diarrhea [ ] Cough [ ]
    Weight loss [ ] Skin disease [ ] Pregnancy [ ]
    Medical examination to know my status [ ]
    Others(specify)……
11. What was your reaction when you were first told you have HIV?
    I couldn't believe it [ ] I felt bad about it [ ] I cried [ ]

I thought of committing suicide [ ] I took it in good faith [ ]
Others (specify)……..

12. Have you told anybody about your HIV status?
Yes [ ] No [ ] ***If No go to question 18.***

13. Who was the first person you told your HIV status?
Spouse [ ] Pastor/Imam [ ] Father [ ]
Mother [ ] Brother [ ] Sister [ ]
Boss [ ] Friend [ ] Child [ ]
Others (specify)……

14. How long did it take you to tell the first person your HIV Status?
Same day [ ] 1day-1month [ ] 2- 6months [ ]
7 – 12months [ ] >1year [ ].

15. How did the first person you told about your HIV status react when he/she learnt that you are HIV positive?
was shocked but stood by me [ ]
was shocked but angry with me [ ]
My spouse rejected me and sent me away [ ]
Was indifferent [ ]
Resign to faith and encourage me [ ]

16. Why did you decide to disclosure your HIV status to somebody?
I will gain their support [ ]
I will gain their sympathy [ ]
I will be excused from difficult work or activity [ ]
For people to pray for me [ ]
Adopt safer (protective) sexual practice [ ]

17. Were you counseled to disclose your HIV status or you did so without being counseled?
I was counseled [ ] **(After the response to this**
I did so on my own without counseling [ ] **question skip to Number 19)**

18. Why have you not disclose your HIV status to somebody?
I am a shame [ ]
I may be abandoned and rejected [ ]
I may lose my job [ ]
I may be divorce [ ]
It is not important [ ].

19. Do you have a treatment supporter?

Yes [ ] No [ ] ***If yes go to question 21***

20. Why don't you have a treatment supporter?
    I don't know who to choose [ ] **(After responding to this question**
    It is not necessary [ ] **skip to Number 24)**
    The people I spoke with are not willing [ ]
    I don't know anything about treatment supporter [ ]
21. Who is your treatment supporter?
    Spouse [ ] Father [ ] Mother [ ]
    Brother [ ] Sister [ ] Boss [ ]
    Friend [ ] Child [ ] Pastor/Imam [ ]
    others(specify)……
22. Is your treatment supporter aware that you are HIV Positive?
    Yes [ ] No [ ]
23. How often does your treatment supporter remind you of your clinic appointments?
    Very often [ ]
    Once in a while [ ]
    Doesn't remind me [ ]
24. Have you started taking Anti retroviral (ARV) drugs?
    Yes [ ] No [ ] ***If No go to question 28.***
25. In the last one month did you missed your medication (ARVs)?
    Yes [ ] No [ ] ***if No go to question 27***
26. How many times did you miss your medication in the last one month?
    Once [ ]
    twice [ ]
    Thrice [ ]
    more than four times [ ]
27. Who often reminds you of the time to take your medication (ARVs)
    Treatment supporter [ ]
    Alarm clock [ ]
    No body [ ]
28. Have you engaged in unprotected sex since you are diagnose HIV positive?
    Yes [ ] No [ ]