

KNOWLEDGE AND PERCEPTIONS OF HIV/AIDS AND MOTHER TO CHILD TRANSMISSION AMONG ANTENATAL MOTHERS AT NNAMDI AZIKIWE UNIVERSITY TEACHING HOSPITAL, NNEWI.

A.O. IGWEGBE*, A.L. ILIKA*.

Department of *Obstetrics & Gynaecology and *Community Medicine, College of Health Sciences, Nnamdi Azikiwe University, P.M.B. 5001, Nnewi.

ABSTRACT

Objective: Knowledge of HIV/AIDS by pregnant mothers is very important in the prevention of mother to child transmission. This study evaluates the knowledge and perceptions of HIV/AIDS and mother to child transmission among pregnant women attending antenatal clinic at a University Teaching Hospital.

Methodology: Pre-tested questionnaires were interviewer administered to 312 pregnant women randomly selected at the antenatal clinic of the Nnamdi Azikiwe University Teaching Hospital Nnewi.

Results: The level of awareness of HIV/AIDS among antenatal mothers was very high (99%) and the main sources of information were radio (44.7%), television (38.8%), and print media (34.0%).

Though majority (94.2%) was aware HIV infection can coexist with pregnancy, only 76.9% were aware of mother to child transmission. Transplacental (46.1%), breastfeeding (31.7%), and vaginal delivery (16.3%) were the commonly identified routes of vertical transmission.

Surprisingly, eighteen respondents (5.8%) indicated that caesarean section is a possible route of vertical transmission.

Conclusion: Though the percentage of HIV/AIDS knowledge is high, the level of knowledge and perceptions of mother to child transmission is inadequate. This suggests the need to scale up health education about mother to child transmission in our health facilities.

Key Words: knowledge, HIV/AIDS, mother to child transmission, antenatal mothers.

INTRODUCTION

HIV/AIDS remains the most emerging public health problem of our time. Though it was first reported in 1981 in California, Los Angeles U.S.A., the greatest burden is in Sub Saharan Africa¹. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) 38 million people had been infected with the virus world wide by the end of 2003 of which 25 million (66%) were in sub Saharan Africa which is just over 10% of the world population¹.

The first case of HIV/AIDS infection in Nigeria was reported in 1986 in a 13 year old girl². It was doubtful then as many believed that it was a disease of the whiteman with sexual pervasion. Today it is reverberating throughout the country involving all categories of people and community. AIDS is now a pandemic inflicting an unprecedented social, economic

and behavioural impact on individuals, families and communities.

The prevalence of HIV/AIDS has been rising in Nigeria, from 1.8% in 1990 to 3.8% (1993); 4.5% (1996); 5.4% (1999) and 5.8% in 2001³. The National median prevalence for 2003 is 5.0%⁴. This first drop does not imply stabilization or downward trend since there are wide variations between states and between urban and rural areas across the country.

Globally, 2.9 million people out of which 490,000 were children died from AIDS in 2003¹. The rising incidence of children dying from AIDS is very worrisome. According to the United Nations Programme on AIDS, 2.1 million children below 15 years are living with HIV world wide and over 90% of them are in sub Saharan African. More than 90% of paediatric HIV infection is acquired from the mother⁵ and 14 – 40% of babies born to HIV infected mothers

Correspondence: Dr. A.O. Igwegbe
E-mail tigwegbe@yahoo.com

acquire the infection either during pregnancy, labour, or through breastfeeding^{6,7}.

The challenge of mother to child transmission of HIV is much higher in sub Saharan Africa compared to the rest of the world because of higher levels of heterosexual transmission, high fertility rate and high levels of breastfeeding. Concerned about the impact of high HIV prevalence in Nigeria and the consequences of increased vertical transmission rate, the Nigerian Government developed the HIV/AIDS Emergency Action Plan (HEAP)⁸ which provided guidance for all HIV/AIDS implementation activities. The goal of the Nigerian National Policy on HIV/AIDS and STI and of related strategies and interventions is to achieve a reduction in HIV/AIDS prevalence to less than 1% of the population by the year 2010⁹. The global target is to reduce the number of infants infected with HIV by 20% by 2005 and 50% by 2010¹. The guidelines for Prevention of Mother to Child Transmission of HIV (PMTCT) Programme in Nigeria was produced in August 2001 and started in July 2002 initially in six primary sites, one in each geopolitical zone of Nigeria. This has recently been scaled up to eleven sites including Nnamdi Azikiwe University Teaching Hospital, Nnewi.

Nnewi is a growing urban town with an estimated population of 169,886¹⁰ in Anambra State, in the South East geopolitical region of Nigeria. The Nnamdi Azikiwe University Teaching Hospital provides tertiary medical care to the people of Anambra State and her neighbours. Following the designation of the centre for PMTCT programme, it becomes pertinent to determine the knowledge and perceptions of HIV/AIDS and mother to child transmission among women seeking antenatal care. The information obtained shall influence the counseling and education of patients and the community on HIV/AIDS, which in turn will influence compliance to the PMTCT programme.

OBJECTIVES

1. To evaluate the knowledge and perceptions of HIV/AIDS among antenatal mothers.
2. To determine the knowledge of mother to child transmission of HIV/AIDS among pregnant women attending antenatal clinic.

SUBJECTS AND METHODS

The study was carried out at the antenatal clinic of Nnamdi Azikiwe University Teaching Hospital Nnewi from 1st October to 31st December 2003. Nnewi is a growing urban town among the Ibo tribe in the South

East of Nigeria. Antenatal clinics are held daily from Monday through Friday every week. The average attendance is 45 persons. All the women who attended the antenatal clinic were listed. This formed the sampling frame from which every third woman was chosen such that 8-10 persons were recruited during a clinic day until all the 312 women were interviewed. The nature of the study was explained to them and their verbal consent obtained. They were assured of confidentiality. Only those willing to be interviewed were included. The women were interviewed by the authors and senior residents using a pre tested questionnaire that sought information on socio-demographic characteristics, knowledge and perception of HIV/AIDS, source(s) of information, knowledge on mother to child transmission and voluntary counselling and testing for HIV/AIDS. The data were analyzed manually using frequency distribution and percentages.

RESULTS

Majority of the respondents 222 (71.2%) were aged 25-34 years and the peak parity (23.1%) was para 2, as shown in **Table 1**.

All the respondents were Christians. Nine (2.9%) of the women had no formal education, 183 (58.7%) had secondary education and 105 (33.6%) had tertiary education. Eighteen respondents (5.8%) were single, 279 (89.4%) were married and three (2.9%) were widows.

Table 2, shows that 99 percent of the respondents were aware of HIV/AIDS and 49.5% had known about the disease for up to 5 years and over. The main sources of information were radio (44.7%), television (38.8%) and news papers/posters (34.0%). Information from health workers contributed 28.2%. Regarding routes of transmission, 84.5 percent identified sexual intercourse, sharing of needles (42%), blood transfusion (38.8%) while 12 (3.9%) were ignorant of the routes of transmission.

In table 3, 294 respondents (94.2%) were aware that HIV infection can coexist with pregnancy but only 76.9 percent were aware of mother to child transmission of HIV. Regarding the routes of transmission to the child, transplacental (46.1%), breast feeding (31.7%) and vaginal delivery (16.3%) were the commonly identified routes of vertical transmission. Seventy two respondents (23.1%) do not know any method of preventing mother to child transmission. The use of antiretroviral drugs in pregnancy (30.8%), avoidance of breast feeding (28.8%) and the administration of antiretroviral drugs to the new born (17.3%) were the commonly identified methods of reduction of mother to child transmission of HIV/AIDS known to the women.

Table 1: Socio Demographic Profile Of The Study Population (n=312)

Age (Years)	Number	Percentage
15 – 19	6	1.9
20 – 24	63	20.2
25 – 29	132	42.3
30 – 34	90	28.9
35 – 39	21	6.7
TOTAL	312	100
Parity 0	54	17.3
1	57	18.3
2	72	32.1
3	63	20.1
4	33	10.6
5	27	8.6
->6	6	1.9
TOTAL	312	100
Education Status		
None	9	2.9
Primary	15	4.8
Secondary	183	58.7
Tertiary	105	33.6
Marital Status		
Single	18	5.8
Married	279	89.4
Divorced	6	1.9
Widow	9	2.9

Table 2: Awareness and Knowledge of HIV/ AIDS

Aware of HIV/ AIDS	Number	Percentage
Yes	309	99
No	3	1
Total	312	100
Duration of awareness (n=399)		
1 years	9	2.9
2 year	21	6.8
3 years	6	19.4
4 years	66	21.4
->5 years	153	49.5
Source of information (n= 309)		
Radio	138	44.7
Television	120	38.8
Newspapers/ Poster	105	34.0
Health workers	87	28.2
Friends	66	21.1
Churches	42	13.6
Knowledge of routes of transmission (n 309)		
Sexual intercourse	261	84.5
Sharing of needles	130	42
Blood transfusion	120	38.8
Mosquito bites	18	5
Kissing (Saliva	15	4.9
Do not know	12	3.9

Table 3. Knowledge about HIV and Pregnancy (N = 312)

HIV pregnancy	Coexistence	Number	Percentage
Yes		294	94.2
No		18	5.8
Total		312	100
Mother to child Transmission			
Yes		240	76.9
No		27	8.7
Not Sure		45	14.4
Total		312	100
Routes of transmission to child			
Placenta		144	46.4
Breast Feeding		99	31.7
Vaginal delivery		51	16.3
Caesarean section		18	5.8
Not sure		15	4.8
Methods of Prevention of MTCT			
ART in pregnancy		96	30.8
No breast feeding		90	28.8
ART to newborn		54	17.3
Delivery by c/s		24	7.7
ART in labour		24	7.7
Do not know		72	23.1

DISCUSSION

The level of awareness of HIV/AIDS among pregnant mothers in Nnewi, a growing urban town is very high (99%), and almost half of the respondents have known about the disease for five years and above. This is commendable and may be attributed to many factors including the high level of education of the respondents. Such high levels of awareness have been reported in Lagos¹¹ and Onitsha¹², in Nigeria and other parts of the world^{13,14}. In spite of the high awareness and knowledge of HIV/AIDS reported in most parts of Nigeria, the prevalence continues to rise among pregnant women as shown by sentinel surveys^{3,4} in which pregnant women were the participants. This raises the issue between HIV/AIDS awareness and HIV/AIDS risk perceptions/behaviour change, and suggests the need to study further the HIV risk perceptions among pregnant women. The main sources of information on HIV/AIDS among the study group were radio, television and print media. These instruments of mass communication have been shown to be effective among literate people¹². The use of these media by the Federal Government of Nigeria and the non-governmental agencies in disseminating information on HIV/AIDS control programmes is worthwhile. Information from health workers was low as observed in Lagos, Nigeria¹¹. This may be because people in this environment commonly visit the patent

medicine dealers and only access proper health facilities when they are very sick. The churches, which are fora for dissemination of information, especially in the rural areas contributed least to HIV/AIDS awareness in the study. This is not surprising. Though many churches and faith based organizations are collaborating with HIV/AIDS prevention programmes, it is known that some religious groups in Nigeria especially the Pentecostal groups claim the ability to cure all illnesses including HIV/AIDS rather than giving proper education and information on the disease. This underlines the need to target religious leaders in the HIV/AIDS education and capacity building campaigns. The knowledge of the respondents on the mode of transmission is in line with the worldwide trend^{1,11,13,15} sexual intercourse being the commonest(84%) route of transmission known to the respondents. This was followed by transmission from blood through sharing of needles and blood transfusion. Though the knowledge of HIV co-existence with pregnancy (94.2%) and mother to child transmission (76.9%) were high, specific knowledge of the routes or modes of transmission to the child is low.

Similar low level of knowledge of mother to child transmission was recorded in Uganda and Tanzania¹⁶. Only 31.7% were aware of breastfeeding as a means of transmission. It is known that breast feeding contributes 30-50% of vertical transmission^{6,17}. This is a noteworthy and contemporary issue, since in Nigeria and in most developing countries breastfeeding is the cultural norm and exclusive breastfeeding is advocated because of high infant mortality and morbidity from diarrhoeal diseases and malnutrition. Secondly, mothers are likely to opt to breastfeed to avoid being stigmatized as HIV/AIDS victims.

This study highlights a wrong perception that HIV/AIDS could be transmitted to the child through caesarean section as in vaginal delivery. This wrong perception may lead to refusal to accept elective caesarean section and needs to be corrected. However it is known that elective caesarean section has reduced the risk of transmission by over 50% compared with vaginal delivery⁶. Elective caesarean section is practiced in developed countries as a method of reducing mother to child transmission.

The general knowledge of the methods of preventing or reducing mother to child transmission is low. Less than one-third of the respondents knew the methods. This underlines the need for scaling up health education about mother to child transmission in antenatal clinics in Nigeria as a means of meeting the global target of reducing the number of infants infected with HIV by 20% by 2005 and by 50% by the year 2010¹. Access to voluntary counseling and testing of pregnant women, comprehensive reproductive health

services and antiretroviral prophylaxis should also be scaled up to meet the challenges of mother to child transmission.

CONCLUSION.

This study shows that though, there is a high level of HIV/AIDS awareness among antenatal mothers, there is a low knowledge of mother to child transmission. There is need to scale up health education on mother to child transmission in our health facilities.

REFERENCES

1. **UNAIDS Joint United Nations Programme on HIV/AIDS.** 2004 Report on the Global AIDS Epidemic, 4th Global Report. 2004, Geneva.
2. **Rukujei AD.** Epidemiology of HIV/AIDS in Nigeria. *Nig. J. Med* ; 7: 8-10
3. **Federal Ministry of Health Nigeria.** The National HIV/ Syphilis. Sentinel Survey 2001. Abuja. 70pp
4. **Federal Ministry of Health Nigeria,** 2003 HIV Sero – prevalence sentinel survey Abuja; 2004. 64pp.
5. **Giaquinto C, Rage E, Giacomet V. Rampon O and D Elia R.** HIV: Mother to child transmission current knowledge and on going studies. *Int. J. Gynaecol Obstet* 1998; 68 (Suppl 1): 161 – 5
6. **Federal Ministry of Health Nigeria** National guidelines for the implementation of prevention of mother to child transmission (PMTCT) of HIV programme in Nigeria .Abuja : 2001. 62pp.
7. **Jackson H.** AIDS Africa: continent in crisis. Zimbabwe. Safaids; 2002. p.144
8. **Federal Ministry of Health Nigeria.** HIV/AIDS Emergency Action Plan (HEAP). Abuja; 2001. pp45.
9. **Federal Ministry of Health Nigeria:** (National HIV/AIDS/STI control Programme). National Policy on HIV/AIDS/STIS. Abuja; Dec 1997.
10. **National Population Commission.** Nigeria. Final census result 1991. Abuja.
11. **Ayankogbe OO, Omotola BD, Inem VA, Ahmed OA, Manafa OU.** Knowledge; attitudes,

- beliefs and behavioural practice for creating awareness about HIV/AIDS in Lagos State Nigeria. *Nig. Med. Pract.*, 2003; 44 (1): 7 – 10.
12. **Obiechina NJ, Diwe K, Ikpeze OC.** Knowledge, awareness and perception of sexually transmitted diseases (STDs) among Nigerian adolescent girls. *J. Obstet Gynaecol*, 2002; 22(3): 302 –5.
 13. **Yerdaw M, Nedi T, Enquosolassia F.** Assessment of awareness of HIV/AIDS among selected target groups in and around Addis Ababa Ethiopia. *Afri J. Reprod Health*, 2002; 6(2): 30 – 37.
 14. **Erickson T, Sonesson A, Issacson A.** HIV/AIDS: Information and Knowledge: A comparative study of Kenyan and Sweedish teenagers. *Scand. J. Soc. Med*, 1997; 25(2): 111-8.
 15. **Fawole OI, Asuzu MC, Odutan SO.** Survey of knowledge, attitudes and sexual practices relating to HIV infection / AIDS among Nigerian secondary school students. *Afr. J. Reprod Health*, 1999; 3(2): 15-24
 16. **Harms G, Mayer A, Karcher H.** Prevention of mother to child transmission of HIV in Kenya, Tanzania and Uganda. Report. GTZ PMTCT Project. International Co-ordination Office, Berlin, 2003; 1-26
 17. **Gray and McIntvre International AIDS Society Newsletter.** 1999; 12: 8 - 10