

Original article

Baseline survey of pregnant women's knowledge of treatment to prevent mother-to-child human immunodeficiency virus transmission in a resource limited setting

Stephen Onwere, Obioha Okoro, Bright Chigbu, Chuks Kamanu, Christian Aluka, Paul Feyi-Waboso.

Department of Obstetrics and Gynaecology, Abia State University Teaching Hospital, P. M. B. 7004, Aba, Abia State, Nigeria

Abstract

Despite continuing advances in scientific knowledge about treatments to prevent mother-to-child (MTCT) of the human immune deficiency virus (HIV), there is a paucity of data on pregnant women's knowledge of treatments to prevent MTCT of HIV in Aba, South Eastern Nigeria. We investigated pregnant women's knowledge of the availability of treatments to prevent MTCT of HIV in the low resourced setting of Aba town in South Eastern Nigeria. A descriptive study involving 100 consecutive and consenting patients at the antenatal clinic of Abia State University Teaching Hospital (ABSUTH), Aba, South Eastern Nigeria over the period 1st November, 2007 to 30th November, 2007. Using a structured questionnaire, the respondents' sociodemographic data were obtained as well as their knowledge of the availability of treatments to prevent mother to child HIV transmission in pregnant women and self-reported data on their having ever tested for HIV. Knowledge regarding availability of treatment to prevent mother to child transmission of HIV was good as 95% of the respondents were aware that such treatment was available. Knowledge that treatment is available to help someone infected by HIV to live longer was also good as 96% of the respondents were aware of the availability of such treatment. Seventy one percent of the respondents had ever tested for HIV. The levels of knowledge regarding the availability of treatment to prevent mother to child HIV transmission and to help someone infected with HIV are good. Thus, utilization of anti-retroviral prophylaxis amongst HIV infected pregnant women in this community would be expected to be high if the drugs were available. This will reduce the impact of HIV, especially in children.

Keywords: knowledge, treatment, prevent, human immunodeficiency virus, transmission, pregnant women.

INTRODUCTION

The risk of maternal to child transmission (MTCT) of HIV can be reduced to less than 2% by interventions that include antiretroviral prophylaxis given to women in pregnancy and labour^[1]. The availability of effective interventions to prevent the transmission

of HIV from infected mothers to their newborns has reduced the incidence of perinatal HIV transmission in the United States from an estimated 1000 to 2000 cases a year in the early 1990s to an estimated 280 to 370 cases in 2000^[2]. Nigeria has the third highest population in the world of people living with HIV. Many of these infections involve women who were not tested early enough in pregnancy or who did not receive prevention services. There is a paucity of data on the level of knowledge of the availability of treatments to prevent mother to child HIV transmission in pregnant women in Aba, South Eastern Ni-

Correspondence to: Dr. S. Onwere, Department of Obstetrics and Gynaecology, Abia State University Teaching Hospital, P. M. B. 7004, Aba, Abia State, Nigeria. E-mail: stephenonwere@yahoo.com

geria. Hence, the need for this study.

METHODS

This was a hospital based descriptive study conducted between 1st November, 2007 and 30th November, 2007 at the antenatal clinic of ABSUTH, Aba, South Eastern Nigeria. One hundred consecutive antenatal patients who gave informed consent to participate in the study were enrolled. Using a structured questionnaire, the respondents' sociodemographic data were obtained as well as their knowledge of the availability of treatments to prevent mother to child HIV transmission in pregnant women and self-reported data on their having ever tested for HIV. Data analysis included descriptive statistics and content analysis for interview data. Ethical approval was obtained from the ethical and research committee of ABSUTH, Aba.

RESULTS

A total of 100 consecutive antenatal clinic attendees were recruited for the study. Table 1 shows the sociodemographic characteristics of the respondents. Ninety seven (97%) of the respondents were aged between 20-39 years. ninety nine (99%) were married whilst Ninety eight (98%) had attained secondary education or higher. Eleven (11%) of the respondents were housewives, twenty seven (27%) were civil servants and ten (10%) were corporate workers. Table 2 shows that ninety five (95%) of the respondents were aware that treatment is available to prevent mother to child transmission of HIV whilst ninety six (96%) were aware that treatment is available to help someone infected by HIV to live longer. Seventy one (71%) of the respondents had ever tested for HIV.

Table 1: Knowledge of treatment to prevent mother-to-child transmission of HIV by sociodemographic characteristics of the respondents

Characteristics	Respondents answering "True"		Respondents answering "No"	
	NO.	(%)	NO.	(%)
Age				
20-29	43	(43)	2	(2)
30-39	50	(50)	2	(2)
40-49	2	(2)	1	(1)
Marital status				
Married	94	(94)	5	(5)
Divorced/ Separated	1	(1)	0	(0)
Level of Education				
Primary	1	(1)	1	(1)
Secondary	27	(27)	2	(2)
Tertiary	67	(67)	2	(2)
Occupation				
Housewife	11	(11)	0	(0)
Trader	24	(24)	3	(3)
Student	20	(20)	1	(1)
Civil Servant	30	(30)	1	(1)
Corporate Worker	10	(10)	0	(0)

Table 2: Knowledge of treatment to HIV infected pregnant women and HIV testing by respondents

Variable	No	%
Awareness that treatment is available to prevent mother to child transmission of HIV		
Yes	95	(95)
No	5	(5)
Awareness that treatment is available to help someone infected by HIV to live longer		
Yes	96	(96)
No	4	(4)
Ever tested for HIV		
Yes	71	(71)
No	29	(29)

DISCUSSION

This baseline survey of pregnant women's knowledge of treatments to prevent mother to child HIV transmission shows that 95% of the respondents are aware that preventive treatment exists for the prevention of MTCT of HIV. The percentage of women who indicated correctly that treatment existed to help prevent MTCT of HIV (95%) was similar to the percentage of women who stated that treatment existed to help HIV-infected persons to live longer. In contrast, 76.8% of respondents in a similar study conducted amongst postnatal mothers in Ethiopia knew that MTCT of HIV is preventable and 66.6% knew about the protective effect of prophylactic antiretroviral drugs [3]. Recent CDC studies in the United States found that 40% of women of child bearing age were unaware that treatment is available to reduce the risk for perinatal transmission of HIV [4,5].

Antiretroviral therapy administered to the mothers during pregnancy, labour, and delivery and then to the newborn as well as caesarean delivery for women with high viral loads, can reduce the rate of perinatal HIV transmission to 2% or less [6]. If antiretroviral medications are started during labour and delivery, the rate of perinatal transmission can still be decreased to less than 10% [7]. The ability to prevent most perinatal transmissions has led to recommendations that all pregnant women receive an HIV test as early as possible during prenatal care to allow infected women to begin receiving treatment early when it most effectively prevents transmission [2]. Despite this recommendation, testing rates worldwide remain uneven: 71% of respondents in this study had ever tested for HIV. This is higher than the findings of a 2002 study of HIV testing in

the United States where 31% of the 748 women who had recently been pregnant reported that they had not been tested during prenatal care [8]. Thus, continued efforts are still needed to ensure that all women know their HIV status as early as possible in pregnancy. If women are tested early in their pregnancy, those who are infected can be given antiretroviral therapy to improve their own health and reduce the risk of transmitting HIV to the child.

In interpreting the results of this study, some study limitations need to be considered. The sample size was small as this was a pilot study. The subjects in the study consisted of pregnant women only as they were more easily accessible. Studies with much larger sample sizes in Aba and other communities in Abia State are warranted.

In conclusion, the levels of knowledge regarding the availability of treatment to prevent mother to child HIV transmission and to help someone infected with HIV are good. Thus, utilization of anti-retroviral prophylaxis amongst HIV infected pregnant women in this community would be expected to be high if the drugs were available. This will reduce the impact of HIV, especially in children.

It is recommended that social marketing campaigns should be embarked on to encourage women to be tested for HIV and to get early prenatal care in our community. Further, healthcare provider education programmes should be instituted to educate healthcare providers about interventions for perinatal prevention of HIV and implementation of rapid HIV testing for women whose HIV status is unknown at the time of labour and delivery.

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