Infant Feeding Options, Practices and Determinants of Feeding Practices among HIV Seropositive Mothers in Abuja, Nigeria.

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SUMMARY

Objective: To evaluate infant feeding feeding practices and its determinants among HIV positive mothers in Abuja, the Federal Capital Territory of Nigeria.

Materials and Methods: This was a cross-sectional descriptive study conducted among sero-positive women diagnosed during pregnancy and had counseling on infant feeding options. The study was conducted in general hospital Asokoro and Gwagwalada specialist Hospital, both of which offer PMTCT services including free breast milk substitutes (infant formula).

Results: A total of fifty HIV-positive pregnant mothers participated in the study. Most of the respondents (63%) were in age range of 21–30years, while that of the spouses were 31–40years respectively. Forty six percent of respondents had secondary education, while 88% were gainfully employed. Majority of respondents (84%) notified their partners of their sero-status, while 93% of them were counseled along with their spouse/partners (Table 1). All the respondents were counseled on different infant feeding options. Forty percent and 46% of respondents respectively chose exclusive breast milk substitute (EB) and exclusive breastfeeding (EBF) for those who opted for replacement feeding. The main reasons given for the choices were: stigma of HIV status, partner support, availability of supply. Infant feeding choices were significantly related to the level of education and awareness of respondents ($x^2 = 32.8$, df = 16, p = 0.05, $x^2 = 7.4$, df = 2, p = 0.05)

Conclusion: Replaccement feeding under the present PMTCT programme seems feasible in urban areas of Nigeria. However, public awareness campaigns are needed for its increased acceptability coupled with adequate support that must be provided for mothers who opted for it. Additional training for counseling in HIV and infant feeding options is recommeded for health care providers.

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Keywords: HIV sero-positive mothers, infant feeding choices, determinants, Nigeria.

INTRODUCTION

The HIV/AIDS epidemic is one of the major factors challenging women's health with 20 million women living with the virus and more than 2 million pregnancies occuring in HIV sero-positive women annually[1]. Thus, HIV infection has become a major problem complicating the management of pregnancy. In Africa, HIV prevalence varies considerably, with most countries in Southern Africa having more than one in five pregnant women infected, and in a few sub-Saharan countries, median HIV prevalence in antenatal clinics in 2003 exceeded 10%[2]. As at 2005 the prevalence in Nigeria was 4.4%[3], and by the ed of 2006, it was estimated that there are 2.99 million Nigerians living with HIV, with 305,080 adult new infections and 74,520 in childrem, largely (up to 90%) acquired through mother-to-child transmission (MTCT). Between 25 and 44% of mother-to-child transmission (MTCT) of HIV occurs through breastfeeding.

The promotion of breastfeeding is a key component of infant health polices globally because of its obviours health benefits. It is widely practiced not only in Nigeira, but most of Africa, as it is socially and culturally acceptable and natural. However, in the present context of HIV epidemic, this has become a public health dilemma as the overwhelming source of HIV infection in young children is through MTCT[4,5,6,7]. There is also the dilemma of infant feeding decisions by HIV sero-positive mothers, because most breast milk transmission of HIV-1 occurs in the first four months of life, a time when replacement feeding carries the greatest risk of increasing infectious disease morbidity and the benefits of the breastfeeding are highest[8,910]. In deveoping countries, decisions regarding the best mode of infant feeding can be difficult due to social, economic and practical constraints. The relative risks of morbidity and mortality associated with replacement feeding vary according to many factors: the environment, individual circustances of the mother and her family including her education and economic status[4,11,12]. The WHO/UNAIDS stretegic response to prevention of HIV infection in infants centred on four 'pillars': primary prevention of infection generally in women, prevention of transmission from HIV infected women to their infants and provision of treatment, care and support to HIV infected women and their families[13,14]. Thus, the option most likely to be chosen by HIV infected women who do not wish to risk breastfeeding their infants is replacement feeding with formula or other foods. However, WHO recommended that HIV infected women avoid breastfeeding when replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS)[15].

Most women in sub-Saharan Africa have their human immunodeficiency virus (HIV) status diagnosed during

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pregnancy because of testing available through programmes for the prevention of mother-to-child transmission (PMTCT) of HIV. The programme commenced in Nigeria in 2001, and has since undergone several scale-up of both in scope and coverage mainly in secondary and tertiary health facilities. Despite all these, participation/enrollment has been very low. It is in the light of this, that an assessment of feeding preactices and determinants of feeding practices among HIV sero-positive mothers was carried out in one each of secondary and tertiary health facilities in Abuja, the capital of Nigeria, with a view of identifying relevant and appropriate interventions for resolving some of the problems faced by these mothers.

METHODOLOGY

The study was carried out in Asokoro General and Gwagwalada Specialist Hospitals, both located in Abuja, the capital of Nigeria. It is situated in savannah region with a land mass of 800km^2 and population of 1,405,201 (Census, 2006)[16].

This was a cross-sectional descriptive study undertaken in 2006. The 2 hospitals were selected because they offer prevention of mother-to-child transmission of HIV (PMTCT) services including provision of free breast milk substitute (BMS-infant formula) for the first 6 months after delivery. General Hospital Asokoro is a secondary level health facility with 120 bed capacity, while Gwagwalada is a specialist hospital with present bed capacity of 350. Total population sampling was used to select respondents. All HIV positive pregnant women attending Ante natal care at the 2 hospitals and who consented to particiation in the study were recruited. They were then followed up in ANC and at postnatal clinic after delivery. Inclusion criteria; all HIV positive pregnant women seen in 2nd and 3rd trimesters who received pre and post - test counseling including information and counseling on infant feeding options.

Structured closed ended and interviewer administered questionnaires were used to collect data on socio-demographic characteristics, gestitional age when ANC was started, numbe rof visits, pre and post-test counseling on HIV, partner notification and information on infant feeding options. Data were also retrieved from ANC record cards and laboratory records of the patients.

Data was collected by 4 Research Assistants (RAs) who has previous background knowledge on HIV/AIDS and infant feeding. They also had 1 day training on general update of HIV/AIDS, an overivew of mother-to-child transmission of HIV and infant feeding including AFASS crieeria and eview of data collection instrument. This was to ensure standarization of questionnaire administration. At the end of each data collection period, the questionnaires were cross checked by the researchers for accuracy and unifromity.

Data was analyzed using Epi-Infor (Version 6.01). Percentages, mean and standard deviation were used for descriptive data. Chi-squares tests were used where appropriate. Permission for the study was obtained through a written communication to the management of the hsopitals and informed consent was obtained from each respondents. This was after the aim and objectives for the study was explained to the respondents who were assured of the confidentiality of the data collected.

RESULTS

A total of fifty HIV-positive pregnant mothers participated in the study. Most of the respondents (63%) were in thea ge rnage of 21–30 years, with mean age of (X) 28.2 years, while that of the spouses were 31–40 years respectively. Forty six percent of respondents had secondary education and 88% were gainfully employed out of which 54% were in formal employment. Majority of respondents (84%) notified their partners of their sero-status, while 93% of them were counseled along with their spouses/partners (Table 1). All the respondents were counseled on different infant feeding options during ANC attendance. Respondents who opted for replacement feeding (EBS) constituted 48%, while those who chose exclusive breast feeding (EBF) were 46%. The main reasons given for the choices were: stigma of HIV status, partner support, availability of supply. Those who chose EBS used cup and spoon to feed the infants.

Infant feeding choices were significantly related to the level of education and awareness of respondents ($x^2 = 32.8$, df = 16, p = 0.05, $x^2 = 7.4$, df = 2, p = 0.05) and only level of education of partner was found to be associated with feeding options ($X^2 = 43.7$, df = 20, $P<0.05$)

Table 1: Socio-demographic characteristics of Respondent (N = 50)

Age group	No	%
15–20	2	4
21–30	34	68
31–40	13	26
≥40	1	2
Mean age (x) 23.2 years)		
Religion		
Islam	13	26
Christianity	37	74
Educational Status		
No formal education	2	4
Primary	3	6
Secondary	23	46
Teritary	22	44
Occupation		
Business/traiding	17	34
Civil servant	23	46
Teaching	4	8
Others	6	12

Table 2: Gestational age when ANC was started by Respondents

Gestational age (months)	No.	%
1 – 3	14	28
4 – 6	27	54
7 – 9	9	18

Table 3: Infant feeding options and practices by respondents

Feeding options	No.	%
EBF	22	44
EBS	24	48
Wet Nursing	1	2
Animal milk (cow)	3	6

Table 4: Motivation for choices of feeding options by respondents

Motivators	No.	%
Partner	7	14
Nurse/Midwife	9	18
Counselor	5	10
Doctor	3	6
Self	23	46
None	1	2
Family	1	2

Table 5: Precentage distribution of determinants that influenced choice of feeding option by respondents

Factors	No.	%
Stigma of HIV status	25	50
Husband support	13	26
Availability of supplies	7	14
Ease of preparation	5	10

DISCUSSION

Breast feeding may be natural, in practice it is not always simple and as many countries in Africa review and scale-up their PMTCT programmes, there is need to consider potential barriers that these programmes may face in the context of infant feeding options. This study is important because it examines the actual infant feeding practices of HIV-infected women in Abuja, Nigeria, in all 50 mothers participated in the study. Their age varied from 15–40years with an average of 28.2years. This is similar to mean age reported in Nigeria nd elsewhere[17,18,19].

Majority (82%) of respondents had either secondary (46%) or teritary education (44%) out of which only 54% were in formal employment. This is similar to studies from Nairobi, Kenya, Cameroon respectively that reported a 40$ and 51% secondary level education or more and only 26% were employed, but in contrast to that of South Africa, where only 5% of these mothers were in formal employment[9,19,20].

All the respondents were counseled on HIV/AIDS and infant feeding options by Nurse/Midwives or trained counselors.Most of the respondents (46%) were counseled in the second trimester which also coincided with the time majority (54%) started attending ANC. Majority of respondents (94%) source of information on infant feeding options was ANC/Hospital. This is not surprising in addition to health education messages received during antenatal visits, there are various educative materials and posters that are pasted in the hospital that provide more information on HIV and infant feeding. Furthermore, there are lots of publicity campaigns being mounted by the Federal Government through National Agency Committee on AIDS (NACA) in both the print and electronic media.

Eighty-four percent (n = 42) of the respondents who were counseled and obtained their results also notified their partners of their sero-status and 78% (n = 39) were counsele together with their partners. This agrees with the report of an earlier study in which two-thirds of mothers underwent MTCT pre-test counseling out of which 60–90% received their results and in another study 89% adults have disclosed their HIV status to their partner[21,22]. It is now more than ever before that the benefits of knowing one's HIV status. Also discloure of HIV status to sexual partner is an important prevention goal emphasized by the WHO and Centres for Diseases Control and Prevention (CDC)[23,24]. Partner notification has many advantages; partner notification is associated with less anxiety and increased soical support among many women[25], it can be an improtant entry point for HIV-infected women to begin discussing the use of contraception with their partners in order to avoid (reduce) unwanted pregnancies. It also palys a key role in women's uptake of PMTCT programnes and their participation in treatment, care and support programmes. Disclosure of HIV status greatly influenced infant feeding options of HIV-infected mothers as reported in an earlier study if the partner was aware of the HIV status of the mother and involved in the decision whether to breastfeed or formula feed[26].

Seventy-six percent of respondents had decided on infant feeding option antenatally while 24% had not. Postnatally, infant feeding options chosen and practiced by most of the respondents were respectively EBS (48%) and EBF (44%). Infant feeding choices were significantly related to the level of education and awareness of the respondents ($X^2 = 32.8$, df = 16, p = 0.05) . The discrepancy between mothers stated feeding intention and their actual practice has been reported in another study. Uptake of replacement feeding was found to be low ranging from 18% to 50% at separate sites, even when the formula was given free[27] as the case in our study. It is possible that non-financial factors are determining the choice and use of EBS. Self, partner support and Nurse/midwife respectively were the principal motivating factors in the choice of infants feeding options by the respondents. This is gratifying as the key message by WHO is that all HIV-infected mothers should receive general information about risks and benefits of various infant feeding options and that a woman's choice should always be respected and supported[2]. Stigma of HIV status (44%), husband support (22%) and availability of supplies (10%) respectively were the factors that influenced choice of infant feeds option by respondents. This agrees with report of other studies that the use of EBS is associated with HIV stigma and that mothers who has partner support are more likely to take up and adhere to replacement feeding[17,20,23].

CONCLUSION

Our findings provide some insight into the challenges facing HIV-positive mothers and show that these difficulties could have critical implications for the effectiveness of PMTCT programmes in typical rural Nigeria where health care facilities are heavily constrained. The mothers in this study are mostly educated and had partner support, so there is need for male parnter involvement in PMTCT programme. It is hoped that through this, potential areas of 'conflict' can be resolved and the choice of infant feeding option can jointly be decided. Furthermore, mothers need to be supported in their feeding choice, whether it is EBF or use of breast milk substitute after receiving adequate training. They need to be followed up with sustained support at community level to ensure the methods learnt are being used correctly. Additional studies are needed to asess growth partterns and nutritional status of these infants, interventions to improve participation, care and support for HIV positive

mothers and partner/family involvement in supporting mothers' choice of infant feeding options.

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The errors are regretted.