

Determinants of Attitudinal Dispositions of Secondary Health Care Providers and HIV Positive Mothers towards Exclusive Breastfeeding Practice in Selected Healthcare Facilities in Akwa Ibom State, Nigeria

Article by Grace C. Essien¹, Mary A. Mgbekem²

¹Texila American University, Guyana

²Dept of Nursing Science, University of Calabar, Calabar, Nigeria

E-mail: essiengrace@gmail.com¹

Abstract

The World Health Organization has recommended that children of HIV positive mothers be exclusively breastfed for the first 6 months of life unless replacement feeding is acceptable, feasible, affordable, sustainable and safe. The main objective of the study was to identify factors influencing attitudes of secondary health care providers and HIV positive mothers towards exclusive breastfeeding. Focus Group Discussion was used to elicit information from the respondents. Approval to conduct the study at the health facilities was obtained from the Ethical Review Committee of the Akwa Ibom State Ministry of Health, Uyo. A purposive sampling technique was used to select three secondary health facilities (one per senatorial district) out of 34 secondary facilities that conduct focused antenatal care, deliveries and post-natal care services. There were 46 participants comprising of Nurse/Midwives, and Medical Doctors. A total of six FGD sessions were conducted. Five themes emerged from the FGD namely: Awareness of the exclusive breastfeeding concept; health care provider attitude towards EBF by HIV positive mothers; HIV positive mothers' perception towards HIV and exclusive breastfeeding; factors that can influence HIV positive mothers to breastfeed exclusively; and opinion on who will approve or disapprove HIV positive mother to breastfeed exclusively. The result showed that effective and adequate counselling was identified as a key factor that will influence HIV positive mothers to breastfeed exclusively. Poor knowledge and fear of transmission of the virus to baby were cited by most respondents as factors that will influence health care providers and HIV positive mothers' attitude towards exclusive breastfeeding. This study recommended the need for more breastfeeding education for health care providers that will take into consideration current policy and guidelines for feeding HIV exposed infants since health care providers are uniquely positioned to educate HIV positive mothers on infant feeding options.

Keywords: Exclusive breastfeeding, HIV-Positive mothers and Health Care Provider.

Introduction

Nutrition is an essential component of child survival strategies. Optimal infant and young child nutrition is necessary to ensure good health and normal growth / development. Malnutrition is a common condition to HIV infected children and is a major contributor to morbidity and mortality in this population. HIV infection can result in nutritional deficiencies, growth failure and developmental delay. Malnutrition itself results in decreased immune function and greater susceptibility to infections, thus accelerating disease progression. Malnutrition makes HIV infection worse and HIV infection worsen malnutrition (1).

One of the most important child survival strategies is breastfeeding. Over the years, there have been concerns over the transmission of HIV from infected mother to child through breastfeeding. The viral load in the mother's milk is one of the factors contributing to the difficulty in creating breastfeeding recommendations for HIV-positive mothers (2). Exclusive breastfeeding from birth in the presence of ARVs contributes to HIV-free survival in exposed infants. This avoids the risk and complexities associated with replacement feeding (1). Nigeria's decision to promote a single feeding option in the context of HIV was a direct response to the World Health Organisation rapid advice of HIV and infant feeding and its 2010 guidelines of HIV and infant feeding. The organization also expanded its earlier guidance to include earlier initiation of ARV medicines for HIV-+positive

pregnant women and continuing breastfeeding (with the introduction of complementary food at six months of age) to twelve months instead of six months (3). Apart from breastfeeding, infant can be infected with HIV throughout the duration of the pregnancy or during the birthing process (intrapartum).

The qualitative study conducted among mothers and health care workers' perceptions of effects of exclusive breastfeeding on maternal and infant health in Blantyre, Malawi revealed both positive and perception. Despite the HIV epidemic, the mothers regarded exclusive breastfeeding as an important component for an infant's biophysical and psychological well-being. The researchers related the positive perception among HIV positive mothers to the high knowledge level among women on MTCT of HIV. (4). In another study, majority of health workers support an HIV-positive mother to introduce complementary foods at 6 months in addition to breastfeeding (5).

Many studies have documented factors that may influence HIV-positive mothers to breastfeed exclusively. This include fear of stigma. The fear of disclosure maybe a hindrance for HIV positive mothers to choose formula feeding (6, 7). Some studies carried out in African societies where mixed feeding is a norm revealed that it may be impossible to adhere to exclusive breastfeeding. This was confirmed in a qualitative study carried out among HIV-positive women, grandmothers and fathers. One of the strong reasons given by participants in this study for practising mixed feeding is that it is a custom to give water to stranger (including new-borns) which is a sign of welcome to the household (6). It has been observed that social pressure and cultural norms may compel mothers in developing countries to maintain mixed feeding (8). Also, one of the greatest concern in the promotion of exclusive breastfeeding among HIV positive mothers is the belief that exclusive breastfeeding can cause maternal ill-health. This belief may prevent the HIV-positive mothers from exclusively breastfeeding their infants for fear of accelerating HIV infection to full blown AIDS (9, 10). In a similar study conducted in South Africa, HIV positive mothers felt EBF was a burden on them (11).

Other factors include: socio-economic status of the HIV positive mothers as a hindrance to replacement feeding (12). In 2000, WHO reported that across many developing countries, many HIV-positive women do not have the resources to prepare replacement feeds in an acceptable, feasible, affordable, sustainable and safe (AFASS) way (6). The counselling the woman received on infant feeding during Antenatal visits can significantly associated with decision to breastfeed exclusively. The number of ANC visits also influenced the choice of exclusive breastfeeding. Mothers who attended ANC clinic at least three or four times were more likely to practice exclusive breastfeeding than those mothers who do not attend (12).

An exploratory study conducted revealed that fathers are key decision makers with regard to infant feeding, and their support is crucial if successful breastfeeding is to occur. The researchers concluded that paternal, emotional, practical and physical support were important factors which help to promote successful breastfeeding. They noted that the fear of a baby becoming infected could negatively affect the HIV-infected mother's ability to practice EBF for six months. From their findings, they suggested the need to further educate and sensitize male partners and the community on the benefits of EBF, and how ARV drugs protect against the risk of transmission during breastfeeding (13).

Health care providers play major role during antenatal, delivery and post natal period to give accurate information to mothers. They are uniquely positioned to counsel HIV positive mothers on infant feeding option. Although nothing is very new about HIV, however, little is known about the attitudinal disposition of health care providers in secondary health facilities towards exclusive breastfeeding among HIV positive mothers in Akwa Ibom State, Nigeria. This study will help healthcare providers to review their attitudes and seek culturally acceptable ways of improving breastfeeding among HIV positive mothers without stigmatization or discrimination. The study was therefore conducted among health care providers in secondary health facilities in Akwa Ibom State that were involved directly with antenatal care, delivery and post natal care of mothers.

Materials and methods

Study design

This study was conducted using Focus Group Discussion to assess the factors that influence the practice of exclusive breastfeeding by HIV positive mothers. FGD helped in obtaining comprehensive and diverse data in a short period of time.

Study design

Purposive sampling technique was used to select three secondary health facilities (one per senatorial district) out of the 34 secondary health facilities in Akwa Ibom State that conduct focused antenatal care, take deliveries and conduct post natal care. The hospitals were selected because they serve as referral hospital in the respective senatorial district. The hospitals include: General Hospital, Ikot Ekpene, General Hospital, Oron and St. Luke Hospital, Anua, Uyo.

Sample and sampling

A purposive sample of 46 Health Care Providers (comprising of 12 medical doctors and 44 nurse/midwife). This sampling method helped the researcher to recruit participants who were able to effectively express their experience and provide adequate information on the research phenomenon. Thus, health care provider who had a minimum of 3 years working experience at either the antenatal and post natal unit of the three selected health facilities were selected for the study.

Data collection

The question guide for the FGD was developed by the researchers and shared with experts in the field for validation. The validated instrument was used to collect data on the field.

Prior to the study, two research assistants were trained to assist the researcher with the collection of data. The data were collected between November 2015 and January 2016. The researcher conducted all the audio-recorded FGDs that lasted approximately one hour using semi-structured guide. One research assistant assisted the researcher with audio-tape recording of the FGD session and another note-taker. The FGD consist of 6-8 participants per session and were grouped according to cadre. In all six FGDs were held – two per hospital.

Data analysis

All the FGD audio tapes were transcribed verbatim. The transcribed texts were verified using the audio taped FGDs and the field notes. This was to ensure that they were correctly transcribed to preserve the meaning of the participants' words. The word by word transcription was helpful for quoting excerpts during data analysis and discussion. The transcripts were read through over and over again critically to identify codes that captured meaning. The codes were organized into mutually exclusive categories based on their similarities. The different categories were brought together to develop all-encompassing themes represented by the different categories.

Five themes emerged from the FGD namely: awareness of the EBF concept; health care provider attitude towards EBF by HIV positive mothers; HIV positive mothers' perception towards HIV and exclusive breastfeeding; factors that can influence HIV positive mothers to breastfeed exclusively; and opinion on who will approve or disapprove HIV positive mother to breastfeed exclusively.

Ethical consideration

The ethical approval for the study was obtained from the Ethical Review Committee of the Akwa Ibom State Ministry of Health, Uyo after reviewing the protocol. Permission was also obtained from the administrative authorities of each hospital. Prior to the participation, each participant signed a consent form, after the procedure was explained to them. Their participation was voluntary and was free to discontinue with the study if they did not feel like continuing at any point of the study.

Results

Description of sample

Health Care Providers ranging in age from 25 to > 40 years participated in the study. Eight were in the age range 25-30 years, 26 were between 31-39 years and 12 were 40 and above. There were 10 male and 36 female. There were 12 medical doctors and 34 nurse/midwife.

Awareness of the exclusive breastfeeding concept

Almost all the participants had an understanding of the Exclusive Breastfeeding concept. The definition of exclusive breastfeeding varied minimally among few participants. For instance, some participants described exclusive breastfeeding as follow:

"In my own opinion, Exclusive Breastfeeding is giving breast milk, only breast milk, no water, no other form of beverages usually for the first six months of life. But some people say for the first 4 to 6 months of life" (FGD 1 participant – a male doctor)

"Exclusive Breastfeeding is the act of feeding a baby for the first 6 months (giving breast milk alone) without any artificial formula or water" (FGD 3 participant – nurse-midwife)

"Even though a child may be given oral medication, especially when the child is sick, it is still Exclusive Breastfeeding as long as the child is not given other formula or water" (FGD 1 participant – a male medical doctor).

"In my own opinion, apart from giving breast milk alone, the breastfeeding must be on demand day and night". (FGD 1 participant – a female medical doctor).

"The mother feels good if she breastfeed her baby exclusively. She feels she has done the best for her baby and she is happy" (FGD 6 participant – nurse)

"Exclusive breastfeeding prevent pregnancy. This is a method of natural family planning known as Lactational Amenorrhea Method (FGD 2 participant – nurse-midwife)

"Exclusive breastfeeding makes the baby to grow well and healthy. The baby will be strong and does not get sick often. A baby that is not breastfed exclusively will not benefit from the antibodies protection in breast milk (FGD 1 participant – Male medical doctor)

Attitude of respondents towards exclusive breastfeeding among HIV positive mothers.

Majority of the participants held positive attitude towards Exclusive Breastfeeding by HIV positive mothers, but insisted that HIV positive mothers should only breastfeed if they are on ARV drugs. One of the participants buttressed this point by saying that *"Even the Nigeria national guidelines on Infant feeding and HIV recommended that HIV positive mothers should breastfeed exclusively with the use of ARV drugs"* According to the participants, HIV positive mothers that are not on ARV will have a very high viral load enough to transmit the virus to the baby through breast milk. On the other hand, the HIV virus is not easily transmitted when the viral load is very low and the CD4 count is high. While emphasising on her point, a participant said strongly,

"It is better for HIV infected mother to take ARV drugs throughout the duration of breastfeeding rather than the baby. The reason being that the mother would be better able to tolerate the ARV side effects, comply with the recommendations and adhere to taking ARV drugs than the baby". (FGD 2 participant – Nurse)

While contributing, another participant said, *"It is better for HIV positive mother to breastfeed exclusively because it is not in all cases that the virus can pass to the child. The virus can be transmitted to the child if the mother has cracked nipple, early infection, and late initiation. Studies have also shown that Exclusive Breastfeeding reduces the risk of passing the virus to the child. However, EBF should not be more than 3 months* (FGD 5 participant– Medical Doctor)

Some of the participants were of the opinion that exclusive breastfeeding can help the baby not to get the virus because the child will not have diarrhoea if the baby continues to breastfeed exclusively. This is because the virus cannot penetrate the gastro-intestinal tract. They also opined that EBF promotes the well-being of infants. EBF according to the participants is an important component of infant well-being especially in the early months of life. They went further to say that EBF encourages optimal growth and health of infants by protecting them from childhood diarrhoea and recurrent

episode of other childhood illnesses. They also added that an exclusively breastfed infant who suffer from diarrhoea would recover faster than those who are not breastfed exclusively.

Since EBF is of great benefit to infant, children born to HIV positive mothers should not be denied of this benefit (FGD 2 participant – Nurse/midwife)

It is a known fact that if the mother does not exclusively breastfed, the baby will not benefit from antibodies protection found in the breast milk (FGD 6 participant – female doctor).

The participants' opinion was divided on the duration of exclusive breastfeeding. Some participants were of the opinion that the HIV positive mother should breastfeed exclusively for 6 months, while some believe it should be for 4 months and others said for 3 months. All the participants were of the opinion that once the mother stop exclusive breastfeeding, she must not breastfeed the baby again, but can introduce infant formulae or complementary feeding if the baby is up to 6 months. They emphasised that if the HIV positive mother continues breastfeeding after introducing complementary food, she will increase the risk of transmitting HIV virus to the baby. A medical doctor (*while shaking his head*) said “*since HIV positive mother want to reduce the risk of passing the virus to the baby, it is better for her to breastfeed for only 3 months. Breastfeeding longer than 3 months will expose the child to the virus even if the mother is on ARV drug. The child needs breast milk for good nutrition, but since the mother is HIV positive, she does not need to breastfeed for up to 6 months, but must stop at 3 months*” he emphasised.

“Babies start developing teeth from 6 months and they can bite on the breast which may release some. There will be blood contact if the baby has a cut in the mouth or the blood drops into the baby's mouth. The baby can be infected with HIV (FGD 4 participant – nurse).

They all agreed that the HIV negative mother can continue breastfeeding for two years in addition to complementary foods.

HIV positive mothers and exclusive breastfeeding

When asked if HIV positive mothers would want to breastfeed their baby, some of the participants responded that most of the mothers will breastfeed to avoid stigma. A nurse-midwife shared the experience of an HIV positive pregnant mother who said that she would not breastfeed her baby again. This is because her first baby that she did not breastfeed is HIV negative, but the second baby is HIV positive because she breastfed her. Some participants on the other hand were of the opinion that only the HIV positive mothers that have been counselled on the different options will choose to breastfeed or not to breastfeed. The options include: Exclusive Breastfeeding with the use of ARV drugs or giving only artificial formulae to the baby.

The participants also expanded on reasons why an HIV positive mother should practice exclusive breastfeeding (i.e. if they are on ARV drugs). These include:

- Prevents diseases
- Reduces infant mortality rate
- Inexpensive
- Promote growth
- Bonding between mother and child
- Can be used as a family planning method.

Some participants opined that EBF have positive effect on mothers and believe that it will help HIV positive mothers to boost their nutritional status. This is because the stress of EBF will motivate mothers to eat more which will help build their immune system.

EBF makes mothers to eat more so that they can be strong to breastfeed their infant and also produce more milk. For the HIV positive mothers it will help build their immune system and help them get additional energy. However, this can only be possible if the mother have enough food to eat (FGD 2 participant – nurse/midwife).

I have a contrary opinion, an HIV positive mother who does not have enough food to eat to withstand the effect of the ARV drugs will become weak if she breastfeed exclusively and may fall ill

often. These group of mothers need a lot of support to be able to breastfeed (another FGD 2 participant – nurse/midwife).

On the issue of negative effect of HIV positive mother breastfeeding exclusively, the participants were of the opinion that there could be only negative effect if the mother is not on ARV drugs and if the CD4 count is low. Some added that the virus can be transmitted to the baby if the mother has cracked nipple even if the mother is using ARV and the CD4 count is high. *“That is why infant formulae maybe better if it is safe, available and affordable”* a participant added.

“An HIV positive mother that is not on ARV drug should not breastfeed her child at all”, a medical doctor stated emphatically.

“If the mother that is on ARV drugs breastfeed her baby exclusively, it will be difficult for the baby to get HIV virus from the mother as long as the mother is on ARV drugs (FGD 3 participant – nurse/midwife).

Factors that may influence HIV positive mothers to breastfeed exclusively

The FGD participants discussed factors that may make it easier for HIV positive mother to breastfeed. All the participants mentioned effective and adequate counselling as a key factor that will influence HIV positive mother to breastfeed exclusively. The counselling according to them should start from pregnancy. That is why it is advisable for all pregnant women to undergo HIV testing. To buttress her point further, a nurse-midwife noted that *“availability of ARV drugs and good feeding, support from the family will make it easier for HIV positive mother to breastfeed”*. Some participants also added that due to economic situation and poor environment, some mothers will have no choice but to breastfeed their babies exclusively since they will not be able to afford infant formula for their babies. The participants also pointed out that the Nigerian culture encourage breastfeeding, and thus most mothers will see the need to breastfeed even if they are positive to avoid suspicion by neighbour. A participant made this point *“People come to visit you and when the baby starts crying, they will expect you to breastfeed the baby immediately. Our culture encourages breastfeeding.” (FGD 5 participant – nurse midwife).*

Poor knowledge and fear of transmission of the virus to the baby were cited by most participants as factors that will make it harder for HIV positive mothers to breastfeed their babies exclusively. Some participants mentioned that breast condition such as mastitis, cracked / sour nipple will make it harder for the HIV positive mothers to breastfeed. Some medical doctors pointed out that in the case of mastitis, there could be a secondary infection which could make it easier for the virus to be transmitted.

The participants emphasised that in our culture, people belief that a baby should be given water. This usually poses a problem as per Exclusive Breastfeeding. Even if a mother agrees to practice exclusive breastfeeding, the family members, especially mother in law / grandmothers may pose a great barrier. *“An HIV positive mother may succumb to such pressure because she may not be able to declare that she is HIV positive and thus must breastfeed exclusively as a way of preventing the child from being infected” (FGD 3 participant - nurse midwife).*

Other factors as cited by the FGD participants in this study include poor economic and environmental sanitation whereby a mother will have no choice than to breastfeed her baby.

Opinion on who will approve or disapprove HIV positive mothers from breastfeeding exclusively

On this, the majority of the participants noted that during Ante Natal Clinic (ANC) pregnant HIV positive women are always given two infant feeding options (exclusive breastfeeding or the use of infant formula). Base on proper counselling, the infant feeding option will be agreed upon between the doctor and the woman before delivery. They concluded that the doctor is the one to approve if HIV positive mother should breastfeed exclusively depending on her status.

On who will disapprove the HIV positive mothers from breastfeeding, most of the participants said that those that are not properly informed such as the husband, family members, Traditional Birth Attendants and Pastors can disapprove the HIV positive mother from breastfeeding exclusively. However, some participants believed that if the husbands are enlightened, they can influence

positively. They therefore pointed out that husbands should be encouraged to attend the counselling with their wives. Some participants said that Pastors and Traditional Birth Attendants can influence the mothers positively or negatively and suggested that this group of people should be trained on PMTCT. A few participants noted that the society as a whole could influence the HIV positive mothers to breastfeed exclusively.

Discussion

The study revealed several factors affecting exclusive breastfeeding by HIV positive mothers. Almost all the participants defined and had a good understanding of exclusive breastfeeding concept. As compared to earlier studies, majority of the participants held positive attitude, but insisted that HIV positive mothers should only breastfeed if they are on ARV drugs. Earlier study (7) from Sub-Saharan Africa revealed that both health care workers and mothers felt that breastfeeding is a risky way of feeding children by HIV- positive mothers because children contact the virus from the mother. In a qualitative study conducted by Kafulafula et al (4) in Malawi, the nurse- midwives were also of the opinion that the ideal situation which is the surest way of preventing mother to child transmission of HIV is to abstain from breastfeeding.

On duration of breastfeeding, the participants' opinion was divided. Some were of the opinion that the HIV positive mother should breastfeed for less than 6 months even if they are on ARV. On the contrary, majority of health workers in Matavu et al (5) study supported HIV-positive mother to introduce complementary food at 6 months in addition to breastfeeding. Therefore the findings from this study revealed the need to sensitize the health care providers on the updated National Policy and Guidelines on Infant and Young child feeding which states that HIV-positive mothers should be counsel to breastfeed their infants exclusively and take anti-retroviral drugs during the breastfeeding period or longer. They should continue breastfeeding (with the introduction of complementary feeding at six months of age) to twelve months instead of six months (3). With the World Health Organization new guidelines which recommend option B+ where lifelong ART is provided to all pregnant and breastfeeding women living with HIV regardless of C4 count or WHO clinical stage, the health care provider should be able to counsel HIV positive mothers effectively on the options. With effective counselling, more HIV positive mothers will choose to breastfeed exclusively.

Furthermore, the majority of the respondents were of the opinion that mothers living with HIV should not be encouraged to feed babies exclusively with formula. The majority also said that they will not discourage HIV positive mothers to breastfeed exclusively for fear of transmitting HIV to baby through breast milk. This is contrary to the study conducted by Leshabari et al (7) in Northern Tanzania, where it was reported that nurse counsellors regarded both exclusive breastfeeding and replacement feeding as cultural and socially unsuitable. The nurse counsellor as well as nurse-midwives in Kafulafula et al (4) studies believed that the formula feeding was the right option for HIV positive mothers because it eliminates the risk of Maternal to Child Transmission of HIV through breastfeeding.

Fear of stigma and fulfilment of motherhood maybe main factors that can influence HIV positive mothers to breastfeed exclusively. In their opinion, the participants in this study noted that most of the HIV positive mothers will breastfeed to avoid stigma. They also pointed out that the Nigerian culture encourage breastfeeding and thus most mothers will see the need to breastfeed even if they are positive to avoid suspicion by neighbours. This is in line with the studies conducted in Southern Ghana and Malawi, whereby the women feared to use breast milk substitute because it may be seen as a way of announcing the HIV status and this may have extreme consequences such as violence and even divorce (6). Practising EBF with ARV drug would help to avoid the stigma attached to HIV infected women not breastfeeding.

Counselling the woman received on infant feeding during antenatal visits also influence exclusive breastfeeding by HIV positive mothers. The participants noted that poor knowledge and fear of transmission of the virus to the baby will make it harder for HIV positive mothers to breastfeed their babies exclusively. Similar finding was reported by Ndubuka et al (12) noting that receiving infant feeding counselling was significantly associated with decision to breastfeed exclusively. It goes to show that counselling had good impact on mother's choice on infant feeding. Ndubuka et al study

further revealed that the number of ANC visits also influence the choice of EBF noting that mothers who attended ANC clinic at least three to four times were more likely to practice EBF than mothers who do not attend ANC clinic. Therefore, there is need to create enough awareness encouraging pregnant women to attend ANC clinic as soon as they are pregnant and continue the clinic throughout the duration of pregnancy

Cultural practice such as giving water to babies may also influence exclusive breastfeeding by HIV positive mothers. The participants emphasised that in Nigeria culture, people belief that a baby should be given water. An HIV positive mother may succumb to such pressure from family members to give water to the baby. This was also confirmed in a quantitative study carried out among HIV positive women, grand mothers and fathers who saw the custom of giving of water to stranger (including new-born) as a sign of welcome to the household (6,8). Therefore, there is need to educate the society on the danger of giving new-born water.

Fear of stigma and fulfilment of motherhood maybe main factors that can influence HIV positive mothers to breastfeed exclusively. In their opinion, the participants in this study noted that most of the HIV positive mothers will breastfeed to avoid stigma. They also pointed out that the Nigerian culture encourage breastfeeding and thus most mothers will see the need to breastfeed even if they are positive to avoid suspicion by neighbours. This is in line with the studies conducted in Southern Ghana and Malawi, whereby the women feared to use breast milk substitute because it may be seen as a way of announcing the HIV status and this may have extreme consequences such as violence and even divorce (6).

Other factors as cited by the participants in this study include poor economic and environmental sanitation whereby a mother will have no choice than to breastfeed her baby. This finding is in line with the study conducted by Ndubuka et al (12) who found out that one of the factors that influence the choice of exclusive breastfeeding by HIV positive mother was the mother's income. It was also found out in 2000 by WHO that across many developing countries, many HIV positive women do not have the resources to prepare replacement feeds in an acceptable, feasible, affordable, sustainable and safe (AFASS) way (6).

On those that will disapprove HIV positive mothers from breastfeeding, the participants mentioned that those not properly informed such as the woman's husband, family members, TBAs and pastors can disapprove the HIV positive mothers from breastfeeding exclusively. With these findings, it is therefore necessary that everybody should be helped to develop positive attitude towards HIV and breastfeeding.

Conclusion and recommendations

The study identified factors influencing attitudes of secondary health care providers and HIV positive mothers towards exclusive breastfeeding. Effective and adequate counselling were identified as key factors that will influence HIV positive mothers to breastfeed exclusively. Some of the health care providers were of the opinion that the HIV positive mother should not breastfeed her baby for up-to 6 months (even if on ARV) for fear of transmitting the virus to the baby. Therefore there is need for more breastfeeding education for health care providers that will take into consideration current policy guidelines for feeding HIV exposed infants since they are uniquely positioned to educate HIV positive mothers on infant feeding options.

Since the study was only conducted among health care providers, it is recommended that similar studies be conducted among HIV positive mothers in the State.

Limitation of study

- The applicability of the findings from the study may be limited because participants were only drawn from referral hospital in each senatorial district.
- Only health care providers were involved in the study

Acknowledgement

We are grateful to all the participants of this study. We also wish to thank the management of General Hospital, Ikot Ekpene; General Hospital, Iquita Oron; and St. Luke's Hospital, Anua, Uyo, for allowing the researcher to conduct the study in their hospital.

References

- [1]. Becquet, R, Ekouevi, DK, Menan, H, Amani-Bosse, C, Bequet, L, Viho, I, Dabis, F, Timeti-Konan, M & Leroy, V (2008). Early mixed feeding and breastfeeding beyond 6months increase the risk of postnatal HIV transmission: ANRS 1201/1201. *Ditrane Plus, Abidjan, Cote D'Ivoire Preventive Medicine*. 47:27-33
- [2]. FMOH (2015) Integrated national guidelines for HIV prevention, treatment and care. Federal Ministry of Health (Nigeria). *Journal of HIV and Human Reproduction*
- [3]. Infant and Young Child Feeding (2011) HIV-positive mothers in Nigeria: from consensus to action. *Iycn.wpengine.netdu-a-cdn.com/.../iycn_Nigeria_expanding_breastfeeding* updated Aug 2011.
- [4]. Kafulafula, UK, Hutchinson, MK, Grennaro, S & Guttmacher, S (2014). Maternal and Healthcare workers' perceptions of the effects of exclusive breastfeeding by HIV positive mothers on maternal and infant health in Blantyre, Malawi. *BMC pregnancy and childbirth*, 14:247 <http://www.biomedcentral.com/1471-2393/14/247>
- [5]. Laar SA & Govender (2011) Factors influencing the choice of infant feeding of HIV positive mothers in Southern Ghana: The role of counsellors, mothers, families and social economic status. *Journal of AIDS and HIV research* 3(7) pp129-37. Available on line <http://academicjournals.org/JAHR> ISSN 2141-2359
- [6]. Leshabari SC, Blystad A, Moland KM (2007). Difficult choices: Infant feeding experiences of HIV-positive mothers in Northern Tanzania. *Sahara Journal*, 4:544-55
- [7]. Moland, K & Blystad A (2008) Counting of Mother's love: The global policies of prevention of mother-to-child-transmission of HIV in Eastern Africa" In Hahn R, Inhom M. *Anthropology and Public Health. Bridging the differences in culture and society*. Oxford University Press. P449.
- [8]. Matovu JN, Onyango-Makumbi C, Namuli PE, Tanga EO, Kagawa MN et al (2014) WHO 2010 infant feeding guidelines in resource limited settings: attitudes of human immunodeficiency virus – infected women and other role players in Kampala, Uganda. *South Africa Journal of Clinical Nutrition* 27(2): 63-68
- [9]. Ndubuka J, Ndubuka N, LI Y, Caitlin M & Ehiri J (2013). Knowledge, attitudes and practices regarding infant feeding among HIV-infected pregnant women in Gaborone, Botswana: a cross sectional survey. *BMJ open* 20 December 31, 2013. Pub med / Google Scholar.
- [10]. Okechukwu AA, Okpe EC, Okolo AA (2009). Exclusive breastfeeding and postnatal changes in maternal anthropometry. *Nigeria Journal clinical practice* 12 (4) 383-8
- [11]. Piwoz, EG, Humphrey, JH, Tavengiwa, NV, Iliff, PJ, Marinda, ET, Zunguza, CD, Nathoo, KJ, Mutasa, K, Moulton, LH, & Ward, BJ (2007). The impact of safe breastfeeding practices on postnatal HIV-1 transmission in Zimbabwe. *American Journal of Public Health*. 97:1249-1254
- [12]. Thairu LN, Pelto GH, Rollins NC, Bland RM, Ntshangase N (2005) Sociocultural influences on Infant feeding decisions among HIV-infected women in rural kwa –zulu Natal. *Maternal Child Nutrition* 1:2-10
- [13]. Tohotoa J, Maycock B, Hauck YL, et al (2009). Dad makes a difference: an exploratory study of paternal support for breastfeeding in Perth, Western Australia. *International breastfeeding Journal* 4:15