# KNOWLEDGE AND UTILIZATION OF BREAST MILK AS AN INFANT FEEDING OPTION AMONG HIV-INFECTED MOTHERS IN KANO METROPOLIS

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**Abstract**

*This paper examined knowledge and utilization of Breast Milk as an infant feeding option among HIV infected Mothers in Kano Metropolis. To achieve the objective of the study, An Ex-post-facto research design was used for the population of 1300 HIV infected mothers attending PMTCT clinic at AKTH. A total of 291 respondents were selected, using purposive sampling technique. The findings of the study showed that there is a high level of knowledge of breast-milk as an infant feeding option among HIV infected mothers in Kano metropolis, the results further showed that there is a low level of utilization of breast milk a infant feeding option among HIV infected mothers in Kano metropolis.*

***Keywords:*** *Knowledge, utilization, breast-milk, HIV-infected women, PMTCT*

## Introduction

The reported rates of mother-to-child Human Immunodeficiency Virus (HIV) transmissions are higher in developing counties (25-45%) than in industrialized countries (15-25%). Offering HIV test as part of routine antenatal care, combination of antiretroviral drug regimens, and elective caesarean section and advising complete avoidance of breastfeeding has reduced Mother-to-Child-Transmission (MTCT) of HIV to below 2% among the limited number of HIV infected women in developed countries. However, in the developing nations where the vast majority of HIV-infected women of child-bearing age reside, MTCT rates remain high due to a lack of access to feasible, affordable prevention interventions and are compounded by the nearly universal practice of breastfeeding for prolonged periods of time (Ahmed, Odunukwe, Raheem, Efienemokwu, Junaid, Adesesan, Ogedengbe, Harry, Salako, 2004).

The benefits of breastfeeding have been well described in the medical literature (WHO, 2003). These benefits including providing optimal nutrition, preventing common childhood illnesses and improving child spacing are of particular importance in poor resource countries such as in sub-Saharan Africa. For this reason, the possibility of HIV transmission through breast-milk poses a

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dilemma, particularly in conditions, where breastfeeding is a strong cultural norm, and where large numbers of women are infected with HIV. It is estimated that 15% of infants born to HIV infected women acquire the infection through breastfeeding (Oguta, Omwega & Sehmi, 2001). Risk factors for Mother-to-Child- Transmission of HIV through breastfeeding include: the duration of breastfeeding; maternal characteristics such as younger maternal age and higher parity: high peripheral blood and maternal milk viral load; mastitis and breast abscess; infant characteristics such as oral candidiasis; and possibly the pattern and duration of breastfeeding (Rollins, Solarsh & Tomkins, 2003).

WHO (2003) guidelines for infant feeding in the context of HIV recommend the avoidance of all breastfeeding in conditions where foods that can replace breast-milk are 'Acceptable, Feasible, Affordable, Sustainable & Safe. These conditions are often referred to as the AFASS conditions for replacement feeding. Otherwise, the WHO recommends exclusive breastfeeding up to 3-4 months of age. Thereafter, because the risk of HIV transmission may outweigh the protective benefits of breast-milk, mothers should quickly transition from breastfeeding to replacement feeding. In the HIV and infant feeding literature, this is commonly referred to as 'rapid weaning' (Ross & Labbok, 2004).

In Kano State, where access to clean water and sanitation is inadequate, where most families seem to be too poor to afford enough fuel to prepare food and to sterilize feeding bottles or to buy sufficient infant formula, deaths from diarrhea and respiratory infections could far outnumber those from HIV. However, infected mothers need sufficient information to enable them to make an informed choice. In the area under review (Kano State), HIV/AIDS infected mothers seem not to adequately utilize breast milk option. The inadequate utilization might probably be linked to HIV/AIDS infected mothers not having adequate knowledge of the relative risks and benefits to breast milk option. It is against this background that the researcher intends to conduct this research on knowledge and utilization of breast milk as an infant feeding option among HIV/AIDS infected mothers in Kano State.

**Method**

Ex-post-facto research design was used for the population of 1300 infected mothers attending PMTCT clinic at AKTH and 291 samples were collected using purposive sampling technique. Questionnaire was designed in line with four point modified likert scale and used as an instrument for data collection. It was validated and subjected to a split half reliability test and given a value of 0.85. Frequencies

counts and percentages were used to analyze the demographic variables while Pearson product moment correlation coefficient and t-test were used to test the hypotheses of the study at 0.05 level of significance. Only the data from 274 respondents who duly completed the questionnaire were analyzed and reported.

**Results**

The results of the study are presented in Tables 1-3 as indicated below:

**Table 1: Information on Demographic Characteristics of the Respondents**

| Variables | Classification | Frequency | Percentage |
|---|---|---|---|
| Age | 12-25years | 186 | 67.9 |
| | **26 years & Above** | **88** | **32.1** |
| **Total** | | **274** | **100** |
| Marital status | Married | 256 | 93.4 |
| | Unmarried | 18 | 6.6 |
| **Total** | | **274** | **100** |
| Educational | Western | 152 | 55.5 |
| Level | Non-western | 122 | 44.5 |
| **Total** | | **274** | **100** |
| Occupation | Working | 89 | 32.5 |
| | Non-working | 185 | 67.5 |
| **Total** | | **274** | **100** |

As shown in Table 1 above; a total of 274 respondents were used for the study. 186 (67.9%) of the respondents were between the ages of 12-25 years and those between 26 years and above were 88(32.1%). This revealed that majority of the respondents ages were between 12-25 years. With regard to their marital status, 256(93.4%) were married while 18(6.6%) were unmarried. The Unmarried could be single, divorced, separated or widow.

The table also revealed that 152 (55.5%) have western education. This could be primary, secondary and tertiary. And 122 (44.5%) have no western education. This could be that they attended Islamiyya or Quranic School. This implied that the number of the respondents with western education were more than those without western education 89 (32.5%) of the revealed that majority of the respondents were full time house-wives and those that are working could be civil servants, traders and soon working while 185 (67.5%) were not working. This revealed that majority of the respondents were full time house-wives and those that are working could be civil servants, traders and so on.

**Hypothesis I:** There is no significant relationship between knowledge and utilization of breast-milk as an infant feeding option among HIV infected mothers in Kano State.

**Table 2: Correlation between Knowledge and Utilization of Breast Milk as an infant feeding option among HIV infected mothers**

| Variable | N | Mean | SD | DF | R | r-table |
|---|---|---|---|---|---|---|
| Knowledge | 274 | 35.91 | 2.08 | 272 | 0.052 | 0.19 |
| Utilization | 274 | 23.46 | 2.59 | DF | R | r-table |

r = 0.052, df272, (P > 0.05)

Table 2 revealed that r = 0.052 value is greater than 0.05. Therefore, the null hypothesis was retained. This implied that the respondents have high knowledge but. did not influence the utilization of breast-milk as an infant feeding option among HIV infected mothers in Kano Metropolis.

**Hypotheses II:** There is no significant difference in the knowledge of breast-milk as an infant feeding option between HIV infected mothers of age groups 12-25 years and 26 years and above in Kano Metropolis.

**Table 3: T-test showing difference in the knowledge of breast milk as an infant feeding option among HIV infected mothers of age groups 12-25 years and 26 years and above**

| Variable Knowledge | N | Mean | SD | DF | t | Prob. |
|---|---|---|---|---|---|---|
| Age 12-25 years | 186 | 36.17 | 2.20 | 272 | 0.00 | 0.00 |
| 26years & above | 87 | 35.37 | 1.73 | | | |

/t/= 3.01, df = 272, P = 0.003.

The table 3 showed that the calculated value of /t! = 3.01 which is greater than $t_{0.05,272}$, therefore, the null hypothesis was rejected. This implied that, there is significant difference in knowledge between the age group 12-25 years and 26 years and above. The mean showed that there is slight difference in the level of their knowledge.

**Discussion**

The study investigated the knowledge and utilization of breast-milk as an infant feeding option among HIV-infected mothers in Kano Metropolis. The outcome of the relationship between knowledge and utilization on breast-milk as an infant feeding option among HIV-infected mothers in Kano Metropolis revealed that the respondents had high knowledge but the level of utilization of the breast-milk as an infant feeding option was low.

Hence, the knowledge did not influence the utilization of breast-milk as an infant feeding option among the HIV-infected mothers in Kano Metropolis.

The study was in agreement with the findings of Wachira *et al* (2009) where most of the respondents (85.5%) knew of breast-milk as an infant feeding option and route of HIV transmission with sex being highly associated with this knowledge. Breastfeeding was the norm although exclusive breastfeeding was not practiced. Heating expressed milk and wet nursing were least preferred. It also agreed with the findings of PMTCT Advisory 1 Group (2004) that many antenatal women in PMTCT programs know of breast-milk as an infant feeding option and change their minds about infant feeding when they learn they are HIV positive, switching from intending to breastfeed to intending to replacement feed. This study was in contrast to the study conducted by Paoli *et al* (2003), who opined that there was very limited knowledge about breast-milk as an infant feeding option among HIV-positive women in Zimbabwe and that in Tanzania, counselors did not believe that heating the expressed breast milk of HIV-positive mothers would destroy the HIV virus and Zimbabwe mothers thought that expressed breast milk was unclean, associated with witchcraft, and perhaps dangerous.

This study also contradicted the findings of Rollins *et al* (2003) in a South Africa study, where one hundred and seventy one women (91%) intended to breastfeed exclusively while only 18 (9%) planned to offer some form of replacement feeding (17 intended to exclusively formula feed and 1 woman intended to give modified cow's milk).

The study showed that all the respondents had high knowledge of breast-milk as an infant feeding option with the age groups 12-25 years, married, western educational backgrounds and working class respondents more knowledgeable than their counterparts. This is shown in their mean values higher than that of age groups 26 years and above, unmarried, non-western educational backgrounds and non-working class respondents. The slight difference in knowledge might be due to the fact that all the respondents were attending the same lecture in PMTCT Clinics. Despite that, age groups 12-25 years and married more knowledgeable than their 26 years and above and unmarried counterparts might be as a result of the support from their husbands and families. Also, those with western educational backgrounds and working class respondents slightly higher in their knowledge than their counterparts might be as a result of their exposure academically ranging from primary, secondary to tertiary and in their working places. This could be that outside the general lectures in PMTCT Clinics those with higher knowledge apart from the support from their family members might have read from printed papers, bill boards, posters, hand-bills, listen to radio, television and so on. The study gained the support of Bentley et al (2002) that knowledge of breast-milk especially

exclusive breastfeeding was higher in a programme group in South Africa that included trained lay counseling in clinics and home visits and general community breastfeeding "promotion with posters, pamphlets, and newspaper articles Also, in Tanzania, pregnant women of HIV-positive status who had more knowledge about breastfeeding said they were not likely to exclusively breastfeed.

**Conclusion**

Infant feeding option in the context of HIV/AIDS is a very complex issue. Therefore, based on the findings of this research work, the following conclusions were drawn:

1. There is a high level of knowledge of breast-milk as an infant feeding option among HIV -infected mothers in Kano Metropolis.
2. There is a low level of utilization of breast milk as infant feeding option among HIV-infected mothers in Kane Metropolis.
3. Significant relationship did not exist between knowledge and utilization of breast- milk as an infant feeding option among HIV-infected mothers in Kano Metropolis.

**Recommendations**

Based on the conclusion of this research, the following recommendations were made:

1. In addition to HIV-infected mothers being provided with adequate counselling about feeding choices for their infants and the risks of each option, there should be an effort to ensure positive perceptions of and attitudes towards breastfeeding among HIV-infected mothers in Kano State and within the general population.
2. Exclusive breastfeeding should be encouraged especially in the first six months of a baby's life to reduce morbidity and mortality. Hence, health personnel should intensify enlightenment campaign on the knowledge to influence the utilization of breast milk as an infant feeding option among HIV-infected mothers in Kano Metropolis and Nigeria at large.
3. Protection, promotion and support for optimal breastfeeding utilization in the general population should be re-vitalized in order to help HIV-infected and other women who choose exclusive breastfeeding to practice their choice without stigma or discrimination.

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