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## **IMPROVING EDUCATION PROGRAMME AT PMTCT SITES IN LIBERIA: A KAP STUDY ON NUTRITION AND INFANT FEEDING AMONG CLIENTS OF 3 PMTCT SITES.**

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## *Original Article*

### **IMPROVING EDUCATION PROGRAMME AT PMTCT SITES IN LIBERIA: A KAP STUDY ON NUTRITION AND INFANT FEEDING AMONG CLIENTS OF 3 PMTCT SITES.**

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#### **ABSTRACT**

This descriptive study aimed to determine gap in nutrition and infant feeding knowledge, attitude, and practice among the HIV positive mother under 6 months, in order to improve nutritional education program at PMTCT sites level. A total of 90 mothers of child under 6 months chosen at random were interviewed in three PMTCT sites. Data were analyzed by EPI INFO 3.5.3. The results showed in general fair knowledge, attitude but poor practice among the HIV positive mothers of child under 6 months in terms of nutrition and infant feeding.

**Keywords: Nutrition, HIV/AIDS. Health Education, Health Promotion, Health System**

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## INTRODUCTION

HIV infection is a significant public health problem in Liberia. The prevalence stratified by gender shows a higher prevalence among the women. In addition Antenatal care surveys conducted in 2006, 2007, and 2008 show a prevalence of 5.7%, 5.4%, and 4.0% respectively among pregnant women (Ministry of Health and Social Welfare, 2006, 2007, 2008). Liberia also faces malnutrition due to the civil war which is exacerbated by poverty, food insecurity, poor dietary practices, low literacy levels and poor access to basic social services. The most vulnerable groups include people living with HIV (PLHIV).

Chronic malnutrition is endemic affecting 39% of the children under 5. In addition, 14% of women of child bearing age in rural areas and 7% in urban areas are undernourished. Also, 10% of Liberian women have a body index of less than 18.5 (United Nations of International Children's Emergency Fund & Ministry of Health and Social Welfare, 2010).

Addressing gaps in nutrition among PLHIV is essential because nutrition plays a vital role in the care and management of HIV and AIDS. However, very little data exist concerning these aspects of nutrition and infant feeding practices among women living with HIV in Liberia. Education programs are more likely to be effective if the characteristics of the target in terms of knowledge, attitude and practice are known.

This study consequently aimed to assess gap in nutrition and infant feeding knowledge, attitudes, practice of the mothers of child under 6 months, living with HIV so as to report on some effective ways to improve nutritional education program in these vulnerable groups.

## MATERIAL AND METHODS

This cross-sectional study with descriptive aiming was conducted in November 2011 at the John Fitzgerald Kennedy Hospital of Monrovia, the Redemption Hospital and the Liberian Governmental Hospital of Bomi.

The study had recourse to both quantitative and qualitative methods. The sample was composed by 90 mothers of child under 6 months living with HIV, all of them chosen at random. The questions addressed to the mothers were related to the socio-

economic characteristics of the household, nutrition, infant feeding option in the context of HIV/AIDS. To assess their diet, we chose two indicators, the number of daily eating occasion and the number of foods groups consumed through the 24 hours recall.

The data obtained were analyzed by EPI INFO 3.5.3. We used a chi-square test for independence with 95% level of confidence, to determine whether education level, occupation, are related to the diet and the choice of the infant feeding option.

## RESULTS

### Characteristics of the HIV mothers

**Table 1: Characteristics of the Clients**

Variables	Modalities	Frequency	Percentage
<b>Occupation</b>	Civil servant	4	4.40%
	Hairdresseur	8	8.90%
	Housewife	38	42.22%
	trader	28	31.10%
	Other	12	13.30%
	Total	90	100.00%
<b>Education</b>	Illiterate	32	35.60%
	Primary school	14	15.60%
	High school	30	33.30%
	College	14	15.60%
	University	0	0.00%
	Total	90	100.00%
<b>Matrimonial status</b>	Single	10	11.10%
	Co-habitation	42	46.70%
	Married	34	37.80%
	Divorced	0	0.00%
	Widow	4	4.40%
	Total	90	100.00%
<b>Partner occupation</b>	Civil servant	20	22.22%
	Farmer	8	8.90%
	Jobless	10	11.10%
	Trader	30	33.30%
	Taxidriver	6	6.70%
	Other	16	17.80%
	Total	90	100.00%

In general, most of the respondents were jobless (42.22%) with a high percentage of illiterate (35.60%). Moreover, most of their partners were traders (33.30%). Most of the clients lived in cohabitation (46.70%) or were married (37.80%).

### Diet of the Clients

We found that 79.2% of the clients reported consumption of less than six food-groups and 81% had less than 3 daily eating occasions 24 hours before the interview; implying a poor or an inadequate dietary quality. Moreover the diet is not diversified. The nutritional practices were not influenced by the level of education (p=0,256), and occupation (p=0,09)

### Infant feeding option in the context of HIV

Out of the 90 interviewed 30 (33.33%) has chosen to breastfeed while 60 (66.67%) have given replacement food. The choice of the infant feeding option was not related to the mother level of education (p=0,233) and occupation (p=0,015). The reasons for choosing breastfeeding or replacement food are listed below.

Table 2: Reasons for choosing exclusive breastfeeding or replacement food		Frequencies	%
Exclusive Breastfeeding options	Stigmatization	9	29.0
	No financial support	7	24.0
	The clinician advised me	8	26.0
	Maternal milk is good for baby	6	21.0
	<b>Total</b>	<b>30</b>	<b>100.0</b>
Replacement food	To protect my baby from HIV	34	56.0
	The clinician advised me	26	44.0
	<b>Total</b>	<b>60</b>	<b>100.0</b>

Stigmatization remains the main reason which brings the women to choose to breastfeed their baby. Even though 21% of the mothers answered that the maternal milk is good for the baby, none of them were able to cite at least one component of the maternal milk.

When the mothers of child under 6 months were asked about what they have to do to protect their baby from HIV during exclusive breastfeeding: 80.4% answered that they take their medicine while 9.6% do not know what to do.

For those who breastfeed the child, they know the recommendation and say that they want to avoid mix feeding but they don't know that the breast milk already contains water

When asked about the reason of choosing the replacement feeding, 56% of the targets interviewed answered that they want to protect they baby against HIV, 44% that they have been advised by the clinician.

### Respect of AFASS (affordable, feasible, acceptable, sustainable, safe) Criteria when Giving Replacement Food.

The assessment of the actions taken by the mothers to ensure the safety of the replacement food revealed that only 2% used mineral water and when they could not afford it 33% boil the water. None of them used cup feeding.

### Disadvantages/advantages of breastfeeding and the replacement food according to the mothers

Only 68% mothers who have chosen to breastfeed knew the main disadvantages of exclusive breastfeeding which is the high the risk of HIV transmission.

Out of the clients who have chosen the replacement feeding, only 16% answered the high risk of diarrhea and other infection. None of the women interviewed, mentioned as disadvantage the risk of malnutrition.

## DISCUSSION

The study reported on fair knowledge and attitude but poor practice of the positive HIV positive

mothers, toward nutrition and infant feeding education.

Indeed, a high proportion of the mothers (79.2%) reported consumption of less than six food-groups, implying a poor or an inadequate dietary quality as option, which revealed a lack of nutritional defined by Swindale and Ohri-Vachaspati (2004). In average they have 2 meals per day which is not enough when the energetic needs are important<sup>5</sup>. We found that the nutritional practices were not influenced by the level of education ( $p=0,256$ ), and occupation ( $p=0,09$ ), contrary to Tang AM (2003) who highlighted that practices are influenced by social, cultural, economic factors as demonstrated and also by the health workers.

	Breastfeeding option (n=30)	Replacement Food (n=60)
	%	%
Advantages	The milk is good for the baby	Protect the baby against HIV
	You don't spend money to buy milk	Other answers
	The risk of HIV transmission	High risk of diarrhea and other infections
Disadvantages	Other answers	Stigmatization
	Do not know	Do not know
	21.0	95.0
	79.0	5.0
	68.0	16.0
	25.0	25.0
	7.0	59.0

Other studies have shown that low socioeconomic status, level of education, personal beliefs, availability of food, and low nutrition knowledge as contributory factors to poor dietary practices. The poor dietary practices among the PLHIV may also result from loss of appetite and anorexia, thus reducing the frequency of meal and variety at the

very time when their requirements are higher (Walsh, Dann Hauser, & Joubert, 2007; Kim, Spiegelman, Rimm, & Gorbach, 2001).

Infant feeding recommendations for HIV mothers must take into account the local environment and conditions to provide the most accurate information on risks and benefits of breast-feeding and replacement feeding. In the absence of these data, physicians and other hospital staff are faced with deciphering information from other countries and settings, which face conditions different from those of their populations (Suryavanshi et al., 2006).

Exclusive breastfeeding is recommended because it protects infants from morbidity and mortality whether or not HIV related (Victora et al., 1987). In addition, Coutsoudis and al (1999) reported that HIV-exposed infants who were breastfed exclusively for at least 3 months had a lower risk of HIV infection than mixed-fed infants.

Concerning our study, most of the mothers interviewed (66.67%) have chosen the replacement feeding but few of them are stingy to the AFASS criteria. Indeed, none of the women interviewed mentioned as disadvantage the risk of malnutrition for the child, if the food is too diluted. One problem met by the women who have chosen the replacement feeding is the sustainability of this. Even though they receive at the facility 2 cans of milk every two weeks free of charge, they are sometimes unable to buy the cans in case of stock out before the supply. Therefore, they manage the cans and diminish the number of milk spoon recommended.

For those who have chosen to breastfeed, it is mainly because of stigmatization. However, there is a lack of awareness among these women on the importance and benefits of early initiation, the respect of good positioning during breastfeeding to avoid many problems such as insufficient breast milk and sores breasts (Kelleher, 2006).

The choice of the infant feeding option was not related to the mother level of education ( $p=0,233$ ) and occupation ( $p=0,015$ ).

## CONCLUSION

This study highlighted the need of improving education program at PMTCT site in Liberia.

Besides, it will be interesting to deepen researches in order to elaborate a practical guide of nutrition for people living with HIV AIDS in Liberia.

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