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# Knowledge, attitudes and practices on infant feeding options among HIV positive mothers

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## Abstract

**Objectives:** To determine knowledge, attitudes and practices of HIV positive mothers on infant feeding options.

**Design:** Descriptive cross-sectional survey.

**Setting:** A rural district hospital in Zimbabwe.

**Subjects:** A convenience sample of fifty HIV positive mothers attending Prevention of Mother-to-Child Transmission Programme with children under two years of age, were recruited for the study.

**Main Outcome Measures:** Selected indicators of knowledge, attitudes and practices were analysed using descriptive statistics.

**Results:** The study revealed that the majority, 44 (88%), were able to define exclusive breastfeeding, though 36 (74%) practiced exclusive breastfeeding. On the dangers of mixed feeding, 36 (74%) were knowledgeable. Of those practicing exclusive breastfeeding, 25 (50%) were afraid of transmitting HIV virus to their babies, but were constrained by socio-economic and cultural factors. Forty five (90%) of the subjects suggested that husbands or partners should join counseling sessions on infant feeding options.

**Conclusion:** Couple quality counseling is needed to assist in coping with challenges involved in infant feeding options. Breastfeeding support groups are needed after discharge. The size of the sample was small. However the, findings are important to clinical practice.

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## Introduction

The purpose of this study was to determine knowledge, attitudes and practices among HIV positive mothers on infant feeding options. Infant feeding options choice is a problem to HIV positive mothers because of socio-cultural stigma and superstitions attached to non-breast feeders. It is also not always easy to disclose an HIV positive status to the husband.<sup>1</sup> With stigma associated

with not breastfeeding and lack of knowledge may expose babies to HIV infection. HIV positive mothers need information to make informed choices about infant feeding options based on both the efficacy of the methods and a clear understanding of the risks associated with optional feeding methods.<sup>2</sup> The compounding problem in infant feeding options is that there are no individualized counselors and support groups on breast and replacement feeding. In addition

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replacement feeding is costly and it is associated with increased infant mortality.<sup>3</sup> In Zambia studies revealed that a higher proportion of HIV positive mothers offered exclusive breast-feeding after they had received counseling.<sup>4</sup> For the HIV positive mother, information on exclusive breast feeding in low income mothers and replacement feeding in those who can afford it, aims to reduce vertical transmission of HIV infection and infant mortality. The following were used as indicators of knowledge, attitudes and practices. Knowledge of management of formula feeding, risks associated with optional infant feeding methods, exclusive breastfeeding, dangers of mixed feeding and infant feeding options. On practices and attitudes indicators were; socio-cultural and economic factors such as taboos and feasibility of replacement feeds respectively. Currently, some previous research<sup>5</sup> in developing countries indicated that the focus was on replacement feeds and not including socio-cultural and economic factors involved in choice of feeding options.

### Materials and Methods

Study subjects were HIV positive mothers with children under two years of age and on the PMTCT programme. They were selected using the convenience sampling technique in one month. A sample size of 50 mothers was determined by power analysis guided by an effect size of 0.5 to the power of 0.8 and a power calculation chart by Lipsey & Mark (1990). A pre-coded structured interview schedule was administered. Knowledge, attitudes and practices were assessed

Table 1: Knowledge attitudes and practices.

Characteristics/Indicators	Frequency	Percentage
<b>Knowledge Indicators</b>		
Exclusive breastfeeding	44	88
Expressed breast milk and heat treatment	29	58
Commercial formula	32	64
Wet nursing	11	22
Modified animal milk	29	58
<b>Mixed feeding dangers</b>		
High risk of contracting HIV	37	74
Diarrhoea	6	12
Overweight	3	6
<b>Attitude Indicators</b>		
Husband involvement in counselling	45	90
No husband involvement	5	10
<b>Disclosure of HIV status</b>		
To no one	12	24
To husband	42	84
Breastfeeding while aware of risk	25	50
<b>Practice Indicators</b>		
Feeding options practices	25	50
Infant formula	5	10
Modified animal milk	3	6
Expressing and heat treatment	2	4
Mixed feeding	15	30

using closed and open-ended questions on the following indicators; knowledge of exclusive breastfeeding, dangers of mixed infant feeding, practice of exclusive breastfeeding, attitude on infant feeding options and on breast feeding when HIV positive. The questionnaire responses were coded and data was analysed manually using data matrix.

### Ethical Considerations.

Permission to carry out the study was obtained from the Medical Research Board and from the District Medical Officer. All respondents gave written informed consent before being interviewed in a private room for confidentiality between 0800 and 1000 hours while they were waiting to be seen by the doctor. Collected data was recorded on the interview forms that were kept under lock and key.

### Results

#### Demographic Characteristics.

The age range was 16 to 40 years. The social characteristics of the 50 mothers were: 40 (80%) were married, while six (12%) were single, and one (2%) was widowed. On the educational level, all were literate. As 13 (26%) attained primary education, 32 (64%) had secondary education and five (10%) had tertiary education. Eleven (22%) were self-employed, five (10%) were formally employed and two (4%) were unemployed. Thirty two (64%) were house wives. Regarding monthly income, the majority 44 (88%) earned above the poverty datum line.

Table I shows the indicators that were used to assess knowledge, attitudes and practices on infant feeding options namely: knowledge of feeding options and dangers of mixed feed; attitude indicators as husband involvement in counseling; disclosure of status and breastfeeding while aware of positive status and practice indicators as feeding options practices.

On infant feeding options, 44 (88%) were aware of exclusive breastfeeding and 36 (72%) were aware that infant mixed feeding was a high risk to the vertical transmission on HIV. On attitudes, 45 (90%) wanted husbands to be involved in counseling sessions on infant feeding options. On disclosure of HIV status to their husbands, 42 (84%) would disclose. Fifty percent of those practicing exclusive breastfeeding were aware of consequences but continued. Mixed infant feeding was practiced by 15 (30%).

### Discussion

Selected sample characteristics in relation to infant feeding options were described. Informed feeding options information assists in the reduction of HIV vertical transmission and infant mortality. Eighty percent of the mothers were married enhancing the chances of obtaining psychological and financial support, which are needed in boosting support and counseling. All the subjects were literate with at least primary education, thus the majority of the participants could obtain information more broadly than relying on health workers. Sixty four percent of the subjects were housewives, thus with counseling they could afford to breastfeed exclusively for the six months and reduce vertical transmission of HIV.

The results showed that the percentage of those who knew about specific infant feeding option indicators were high, such as (88%) for exclusive breastfeeding and (77%) for high risk for contracting HIV as a danger of mixed feeding. Exclusive breastfeeding reduces

vertical transmission and counseling is needed as 50% of these mothers practiced mixed infant feeding. Prevention of HIV infection is better as presently there is no cure. Therefore, informed choice on infant feeding options is recommended to reduce HIV transmission in infants.

### Conclusion

The level of knowledge indicators of infant feeding options was high. Though the knowledge was high the level of practice was average. A knowledge and safe practice level of 100% must be attained as this will afford great reduction in vertical transmission of HIV and reduce infant mortality.

### Recommendations

Counseling and support of infant feeding option choices should be encouraged and involve husbands, partners or significant others.

Future studies could combine knowledge, attitudes and challenges on practice.

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