

## How to Cite

Kasim, N., & Kurniati, N. (2023). Factors that affect feeding infants with HIV mothers. *International Journal of Health & Medical Sciences*, 6(1), 23-30. <https://doi.org/10.21744/ijhms.v6n1.2089>

# Factors that Affect Feeding Infants with HIV Mothers

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**Abstract---***HIV is a virus that damages the immune system and weakens the body's ability to fight infections and diseases, HIV mothers have a very important role in baby growth and development, one way to improve the degree of health of the baby is by breastfeeding the babies. Breastfeeding a baby with HIV mothers can be done if the mother has received ARV therapy, but until now feeding by HIV mothers is still controversial. Purpose: to examine the factors that affect feeding babies with HIV mothers. Method: the method used is scoping review. Scoping reviews are used to surface literature and to obtain information about research activities related to the topic under study and identify problems in the research area to be studied, create a framework by identifying research questions through PEO, and identify relevant learning through Google Scholar, Pubmed, and Science Direct, selecting study articles with the Prisma Flow Chart, mapping charting data and drawing the flow of article search, compiling, summarizing and reporting results and discussions using qualitative methods consisting of 2 (two) articles originating from Zambia, 2 (two) articles originating from Kenya, 1 (one) article originating from America, 1 (one) article originating from Nigeria, 1 (one) article originating from Africa, 1 (one) the article is from Tanzania and 1 (one) article is from Brazil. Conclusion: Based on the results of the report obtained from the scoping review, it is necessary to increase the role of health workers, the role of the family, maternal knowledge, the economy and stigma because it greatly affects the mother in making choices in infant feeding.*

**Keywords---***behavior, breastfeeding mothers, breastfeeding, formula milk, HIV, knowledge.*

## Introduction

HIV remains a major global public health problem, claiming nearly 33 million lives to date. At the end of 2019, an estimated 38 million people were living with HIV. The majority (85%) of women who live with HIV during pregnancy and underdogs also receive ART. ART not only protects health but also guarantees the prevention of HIV transmission in infants. (WHO, 2016). HIV-positive mothers should be counselled in choosing their baby's nutrition, breastfeeding, and using the most appropriate RF method for their situation. In addition, health professionals will conduct AFASS assessments to review each woman's criteria and consider family support systems to assess locally available and sustainable alternatives to be economically viable (Lanktree et al., 2011).

### *Scoping review methods*

The method used is scoping review. The scoping review aims to map the literature to obtain information about research activities related to the topic under study and identify problems in the research area. Therefore, scoping reviews can provide basic information about possible research needs (Gourounti et al., 2012; Mulyani, 2017; Mulyani, 2018). The first methodological framework conducts a scoping review to explain when and how actions can be carried out and they propose stages of the process to do so, it includes: 1) identifying research questions, 2) identifying relevant studies, 3) selection studies, 4) mapping data, 5) compiling, compiling and reporting results and

discussions. An effective search strategy is to formalize the questions that are used in the findings of the literature. In this process, the framework uses PEO to create questions and find literature.

Table 1  
Skeleton

P	And	Or	S
nursing mothers	HIV	Successful selection of food	Qualitative

Based on the framework, the scoping review question is as follows: What are the factors influencing feeding in infants with HIV mothers?

#### *Identifying relevant articles*

The criteria for articles to be searched for and used as a scoping review is that researchers will identify relevant articles using inclusion and exclusion criteria, as follows:

#### Inclusion criteria:

- 1) Published in English and Indonesian
- 2) Published 2015-2021
- 3) National and international articles
- 4) The article discusses respondents of breastfeeding mothers with HIV

#### Exclusion criteria:

- 1) Attachment documents/draft policies/guidelines from WHO/other formal organizations
- 2) Journals and articles that cannot be accessed free full text
- 3) Articles discussing pregnant women with HIV and complications

In the article selection process, researchers use flow chart prisms to transparently describe the process that has been carried out. The Prism flowchart is considered appropriate to use because its use can improve the quality of screening journals according to criteria and is considered appropriate. After all, its use can improve the quality of published reports (Martini et al., 2010; Deklava et al., 2015). Based on an article search from several databases, there are 234 articles in PubMed, and 112 articles in Wiley. The number of articles was 346 articles, then filtered using voidance and obtained 224 irrelevant articles, 73 review articles, and 35 duplicate articles. Journal results after screening based on title and abstract, there are 14 journals. Then a re-screening was carried out, there were 4 articles issued because of the wrong patient population and 1 article with the wrong research design so 10 articles were obtained that would be used in the preparation of the scoping review (Barimani et al., 2018; Brunton et al., 2020).

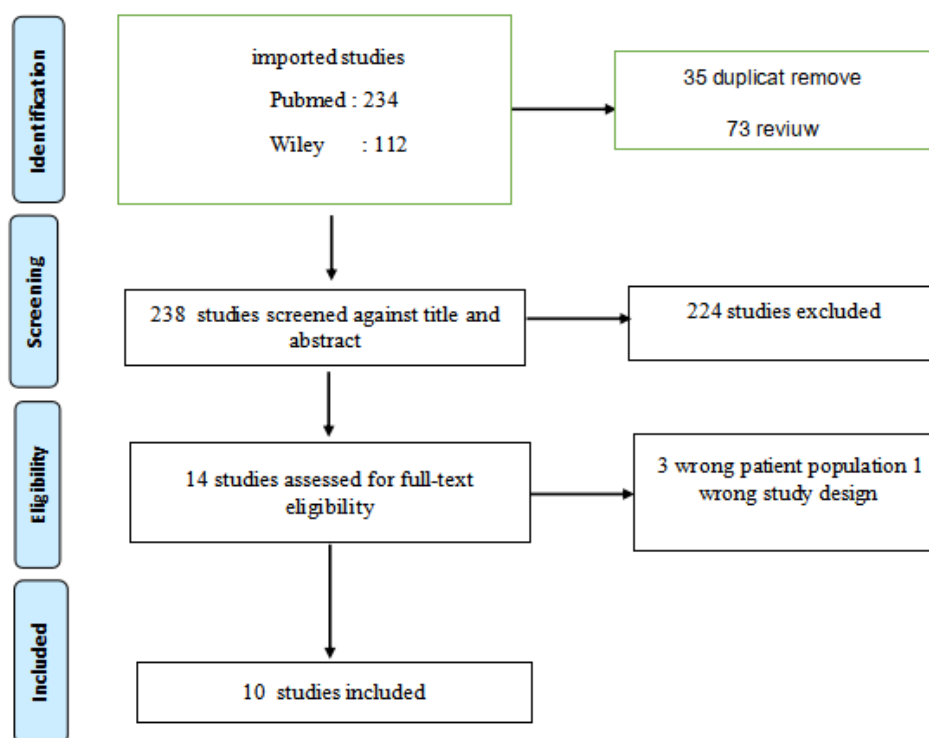


Figure 1. Prism flowchart

After filtering the articles, 9 articles will be assessed with critical appraisal in scoping reviews using hawkers. At this stage, a critical assessment was carried out which obtained 10 articles that corresponded to the topic and inclusion criteria that had been established to give an impression of the overall methodology in the accuracy of the study including 9 items developed (Namgung & Tsang, 2003; Pavlidis & Pentheroudakis, 2005; Cookson et al., 2009).

Table 2  
Date carting

No	Country	Goal	Data Collection	Population and sample	Result
1.	Zambia (Hazemba et al., 2016a)	To improve feeding practices for HIV-displayed infants	Digitally recorded and digitally recorded semi-structured interview guide	As many as 30 mothers with HIV	We found that information promoting exclusively breastfeeding can be understood by mothers as instructions from healthcare providers on how to feed HIV-displayed babies.
2.	Nigeria (Umeobieri et al., 2018)	Testing the perception and practice of breastfeeding from HIV-positive mothers	Using questionnaires translated into local languages and validated with pre-testing with	A total of 550 HIV-positive mothers. 275 from public facilities and 275 from	More than three-fourths of mothers breastfeed their babies and the reasons for breastfeeding include personal preference, cultural

		receiving treatment in public and private places that provide comprehensive HIV care.	expert reviews before being used to collect information	suwasta facilities	norms, fear of HIV infection and outward pressure.
3.	Africa (Nieuwoudt&Manderson, 2018a)	The role of health workers and exclusive nursing guidelines in HIV-endemic southern African communities	Using interview transcript in thematic analysis Using a hybrid coding approach	A total of 48 HIV-infected mothers and 17 health workers	The scientific reasons for this policy are not explained to most medical professionals, most of them believe that the termination of the program is due to the high cost, the importance of exclusive breastfeeding for all babies is not emphasized but counselling on the focus of HIV prevention.
4.	Kenya (Odeny et al., 2016)	How stigma impacts EBF uptake among HIV-positive and negative women	The transcript is translated into English and validated against the original Transcript and the audio recording of the English Transcript is imported into the qualitative analysis software ATLAS.ti, version 7.0.92 (Berlin, Germany) for analysis.	A total of 89 mothers are HIV-positive and negative	There is a broad and strong consensus among some FGD participants that HIV-related stigma is a barrier to EBF. EBF is considered an HIV-positive female practice. Therefore the fear of discrimination against positive and negative women in terms of EBF
5.	Tanzania (Faustine & Moshi, 2022)	Assess the prevalence and factors associated with EBF among HIV-infected mothers	Structured questionnaires managed by interviewers are used for bivariate and multivariable logistic regression data collection used to assess factors related to EBF practices.	A total of 372 HIV-infected mothers with infants aged 6 to 12 months	The prevalence of EBF practices was 58.1% at a 95% Confidence Interval of 52.9% to 63.1%. More than half of 199 respondents (53.5%) had sufficient knowledge while 173 (46.5%) had insufficient knowledge of EBF.
6.	Americas (Etowa et al., 2020)	To understand the social determinants of breastfeeding	Document analysis is the basis for the study	The population in this study was HIV mothers	Research shows that there is a direct correlation between social determinants and

		attitudes among HIV-positive mothers		with a sample in this study of 290 people	breastfeeding attitudes, country of residence, opinions of relatives, advice from health providers and HIV-related stigma are statistically significantly related to attitudes towards me.
7.	Kenya (Samburu et al., 2021)	To know the community's perspective on facilitators and barriers to EBF compliance for HIV-positive mothers	An open-ended interview guide containing a list of questions is used as the primary means for data collection.	The sample used was 205 responders	Guarantees from exclusive breastfeeding include counselling in medical facilities, the desire to have a healthy baby, the use of antiretroviral drugs, and health benefits associated with breastfeeding. EBF barriers include poor political socialization, knowledge gaps, inadequate counselling, the employment of mothers and health workers for fear of vertical transmission of HIV, HIV-related stigma, social pressure, lack of male participation, job, food insecurity, etc.
	Brazil (Alvarenga et al., 2019)	Exploring the experiences of mothers with HIV-displayed children to breastfeeding with milk formula	Semi-structured interviews are recorded and transliterated in full and submitted to qualitative analysis	The population used was breastfeeding that was diagnosed HIV positive, with a sample of 23 people	Support from health, social, cultural and economic workers to improve breastfeeding and formula milk
9.	Zambia (Ngoma-Hazemba & Ncama, 2016)	To investigate the experiences of HIV-positive mothers who breastfeed their babies exclusively during the first 6 months of life.	Data collected using structured interview guides	The population in this study was HIV-positive HIV mothers with a sample of 30 people	The study found that mothers were aware of the risks of mother-to-child transmission of HIV and the benefits of exclusively infected babies.
10.	Uganda (Lanktree et al., 2011)	To explore the relationship	Data collection using	Samples used by 44 HIV-	Many mothers do not follow feeding

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between maternal HIV status and breastfeeding practices	questionnaires	positive mothers	guidelines for HIV infection. Region-specific information on these determinants of breastfeeding practices will be used to inform local Mother-to-Child Transmission Prevention (PMTCT) programs.
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## Results and discussion

This review is used to discuss the factors that influence feeding in infants with HIV mothers

### *Internal Factors*

#### *Maternal knowledge*

Based on the results of research conducted by [Umeobieri et al. \(2018\)](#), mothers with HIV have good knowledge related to HIV transmission through breast milk. However, the knowledge gap caused by inadequate nutritional counselling has contributed to the mother's perception of insufficient breast milk associated with the crying of the baby after the mother breastfeeds ([Engebretsen et al., 2010](#); [Kent, 2007](#)). Improving mothers' knowledge and attitudes about proper infant nutrition practices through appropriate counselling can be provided during ANC visits, as EBF practices can be significantly improved to help mothers reduce fear and indecision during EBF exercises in HIV mothers ([Mulol & Coutsoudis, 2017](#)).

#### *Economics*

The use of formula milk increases daily expenses. Based on current policies, the cost of formula milk causes a loss of incentives for maternal and infant care. This research is in line with the research conducted by the results of ([Gross et al., 2019](#)). [Nieuwoudt & Manderson, \(2018b\)](#) study, it is explained that the government cannot always provide formula milk for distribution to mothers so mothers feel burdened with the cost of spending on formula milk. This research is also similar to the research The need to buy infant formula without free supplies brings high economic costs and requires redistribution of the family's monthly budget or the support of the family ([Alvarenga et al., 2019](#)).

#### *Behavior*

To help HIV-infected mothers practice breastfeeding on their own, exclusive breastfeeding and formula should be given after the mother has been advised by a puskesmas health worker who can provide skills and knowledge about the correct breastfeeding methods thus assisting the mother in determining attitudes towards feeding for the baby (Maulida et al., n.d.). This research is in line with research from counselling ([Lanktree et al., 2011](#)), during pregnancy is rarely carried out regularly, so the puerperium is a very good time for counselling about breastfeeding or formula milk because it is the time of which is right for HIV mothers to decide on the right feeding for the baby

#### *External factor*

##### *Health worker support*

The role of health workers is very influential on the behavior of HIV-positive mothers in food selection ([Etowa et al., 2020](#); [Labbok, 2001](#)). Research shows that there is a need to improve the communication skills of health workers to provide appropriate counselling for HIV mothers because, despite information that encourages exclusive breastfeeding in HIV-infected babies, HIV-positive mothers continue to struggle to understand the information that

influences their desire to change feeding behavior (Hazemba et al., 2016b). This research is in line with research conducted by Samburu et al. (2021), Most health workers in primary care facilities do not have information about the continuation of breastfeeding after 6 months for HIV mothers, so many mothers have doubts about the benefits of using ARF therapy and the use of ART to prevent mother-to-child transmission of HIV.

### *Support Family*

Having a companion during childbirth and breastfeeding is an encouragement and support for the mother (Ngoma-Hazemba & Ncama, 2016b). Based on research conducted by Aishat et al. (2015) Di, HIV mothers choose to breastfeed their babies exclusively because they get support from their husbands. Attitudes and intentions among women in the community are also by other family members such as mothers, aunts and sisters (Chaponda et al., 2017; Waitt et al., 2018).

### *Stigma*

Stigma is the most common barrier for HIV in determining the food to give to their babies (Faustine & Moshi, 2022), based on research conducted in southeastern Nigeria, HIV-infected mothers understand HIV can be transmitted through breast milk but they continue to breastfeed for fear of their HIV status in Odeny et al. (2016), this study in line with research conducted by Umeobieri et al. (2018), breastfeeding is a social norm among Africans, so mothers with HIV continue to breastfeed their babies to avoid suspicion and public consequences.

### **Conclusion**

The results of the scoping review are one of the efforts that can be made by health workers to provide counselling to HIV mothers who are still confused about food selection, by increasing the role and function of health workers in providing appropriate counselling for mothers with HIV, in addition to proper counselling from health workers, there is also a need for support from the family and the community to mothers, the purpose of this method is to increase the knowledge of HIV mothers in determining the right food for their babies. Based on the findings of researchers, they hope that this research can be used as input for health workers and can improve services to mothers HIV positive. The authors hope that this study can be counted as a health promotion effort, especially in providing counselling to reduce the confusion of HIV-positive mothers in choosing the right food for their babies.

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