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# Couples, PMTCT programs and infant feeding decision-making in Ivory Coast

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## Abstract

**In Sub-Saharan Africa, prevention of HIV pediatric infection due to breastfeeding requires turning to alternatives to prolonged breastfeeding: artificial feeding or exclusive breastfeeding with early weaning. Choosing a preventive option and applying it does not only depend upon the mother but also on the father and more specifically on couple interactions. To date, not enough studies have considered this question. In Abidjan, Ivory Coast, HIV-positive women and their infants were followed-up during two years in Ditrane Plus, a Prevention of HIV Mother-to-Child transmission (PMTCT) project. Within this project and on the basis of interviews conducted with couples and women, we analyzed the construction of decisions and practices concerning the application of preventive infant feeding options.**

**Differences may be found between women's and men's in discourses regarding their attitudes, which are in part related to their conceptions of motherhood and fatherhood. When men know their wife's HIV+ status and are involved in the PMTCT project, they play an active role in applying the advices received. However, women do not always need the support of their spouse to do so. The project team also plays an important role for the adoption of preventive behaviors by women and men. The implementation of preventive options is a complex process in which three groups of actors (women, men and the project team) interact. In order to optimize PMTCT programs for couples, it is essential that this dynamic be taken into account.**

**MESH Keywords** Adult ; Age Distribution ; Attitude to Health ; Breast Feeding ; psychology ; Cote d'Ivoire ; Decision Making ; Family Characteristics ; Feeding Methods ; psychology ; Female ; HIV Infections ; prevention & control ; transmission ; Humans ; Infant ; Infant Nutritional Physiological Phenomena ; Infectious Disease Transmission, Vertical ; prevention & control ; Interpersonal Relations ; Interviews as Topic ; Male ; Middle Aged ; Sex Distribution ; Socioeconomic Factors ; Truth Disclosure ; Young Adult

## Introduction

HIV infection among children under 15 is a growing problem in the world and nearly 90% of infected children live in Sub-Saharan Africa. In most cases, the infection is transmitted from mother to child before, during, or after childbirth (UNAIDS, 2008). In developing countries, in-utero risks of transmission or risks at childbirth can be significantly reduced by simple and inexpensive prophylactic measures (WHO, 2007 ; Leroy et al, 2005). However, any efficacy related to these measures may be cancelled when breastfeeding, another manner of transmission, is practiced (Van de Perre, 2000). In Sub-Saharan African countries, mother's milk causes between one-third and 40% of the cases of pediatric HIV infection. (Becquet et al, 2005). Studies have shown that in the absence of intervention, the rate of mother to child transmission is estimated at between 15 and 30% when the infant is not breastfed and can increase to 45% when breastfeeding is practiced (De Cock et al, 2000). The prevention of HIV-transmission through breastfeeding is problematic. Indeed, in low-resource countries, as in the case of Sub-Saharan Africa, prolonged maternal breastfeeding is the norm (Becquet et al, 2005). Moreover, it is also promoted by WHO and other organizations for the health benefits that it offers for the infant as it contributes to reducing morbidity and mortality (WHO, 2007). Since the end of the 1980s, international recommendations for HIV and infant feeding in these countries have been progressively developing to find a balance between the risk of HIV transmission and the risks of infant morbidity and mortality linked with replacement feeding (Coutsoudis, 2005). For Sub-Saharan Africa, these recommendations have given rise to two main alternatives to prolonged maternal breastfeeding: substitutes for breast milk or exclusive breastfeeding with early and rapid weaning. These strategies are supplemented with counseling and continuous support for infant feeding, notably after infant HIV test and 6 months after infant's birth (WHO, 2007).

However, in Sub-Saharan Africa, the choice between infant feeding options and putting them into practice constitutes important obstacles for the HIV-positive mothers because they are often compelled to act in contradiction with traditional practices. Firstly, women's

perceptions of breastfeeding contributes to their difficulty in avoiding breastfeeding or in weaning early. Women, seen as nourishing mothers, are the main actors in this practice; a “traditionally” feminine domain (Bonnet, 1988 ). Breastfeeding is the symbol of “good mothering” (Desclaux, 2002 ). In areas where exclusive breastfeeding is not an usual pattern, mothers consider it necessary to feed other liquids to their infants, such as plain or sugared water, teas, or fruit juice (Becquet et al, 2005 ). The contrast between feeding practices advised in PMTCT and usual patterns, which consists of non-exclusive prolonged maternal breastfeeding, presents an important social risk for women. There, mothers who do not breastfeed are subject to strong stigmatization that exposes them to revealing their HIV-positive status particularly to their spouse if they had not been previously informed them (Coulibaly Traoré & Desclaux, 2000 ). Mothers may also be exposed to pressures from those around them who incite them to breastfeed their infants or to give them other liquids, as it has been shown in South Africa (Thairu, Pelto, Rollins, Bland & Ntshangase, 2004 ). Mothers often feel guilty of depriving their infants of the nutritive value of mother's milk. This feeling of culpability may be accentuated by the campaigns promoting breastfeeding (Desclaux, 2002 ). Finally, the high cost of artificial feeding creates obstacles in accessibility when formula is not provided by any program. Exclusive maternal breastfeeding is also economically difficult given that weaning should be early (Coulibaly-Traoré & Desclaux, 2000 ).

Putting pediatric HIV infection prevention strategies and the decisional process that goes along with them into practice do not only pertain to the individual motivation of the mother. The larger context of the couple and couple interactions determine the constraints that have an influence on practices. Indeed, decisions concerning prevention result from the interaction of the attitudes and practices of the women and their spouses. The man is a key actor who is also involved in prevention practices, as a spouse and as a father. Reinforcing the efficacy and success of PMTCT programs depends upon research studies taking into consideration the couple, notably the perceptions and practices of women but also those of their spouses. This will allow to obtain further data which could be used to build PMTCT programs. More and more research held in Sub-Saharan Africa countries has shown that the couple constitutes a privileged access point to study such phenomena (Oyediran& Isiugo-Abanihe, 2002 ; Hollos & Larsen, 2004 ; Desgrées du Loû, 2005 ). Nevertheless, there is little research about the understanding of couples' HIV prevention behaviour. The majority of research focuses on women. Since the 1990s, the important role of men in reproductive health has been underlined, in particular in the International Conference on Population and Development (ICPD) held in 1994 (Greene & Biddlecom, 2000 ). But research in this domain remains rare. More and more programs emanating from international organizations, related to HIV/AIDS and reproductive health, as well as scientists and people living with HIV call for the greater implication of men (Population Reports, 1998 ; WHO, 2007 ).

In Sub-Saharan Africa, the relationship between men and women takes place in a dynamic of change, which has often been described ( Hollos & Larsen, 2004 ; Schatz, 2005 ) and which redefines male and female roles and statuses. For instance, a conjugal relationship is increasingly organized around communication (Hollos & Larsen, 2004 ; Zulu & Chepnegino 2003 ). Moreover, African women are becoming increasingly autonomous in the decision-making process pertaining to procreation and contraception (Orubuloye, Oguntimehin & Sadiq, 1997 ; Oyediran & Isiugo-Abanihe, 2002 ). Whether it be in the context of HIV or not, the idea of rights and duties concerning infants confirms the growing concerns vis-à-vis the future and material and social conditions of life (Datta, 2007 ; Marie, 1997 ; Montgomery Hosegood, Busza, & Timaeus, 2006 ).

The analysis presented in this article is based on data collected in Abidjan, economic capital of the Ivory Coast. The objective is to understand, through conjugal interactions, the decision-making process of couples concerning infant feeding in the framework of a PMTCT project in which women, but also their partners who wish, receive advice about breastfeeding infants. More precisely, through the analysis of the discourse of HIV positive women and of couples in which the woman is HIV positive and the partner HIV positive or HIV negative, our objective is to try to understand the ways in which the couple choose and put into practice an alternative to prolonged breastfeeding. HIV can disturb three domains of conjugal life: the relation of the couple, their sexuality, and procreation. But HIV intervenes also in the feeding of the infant which is also another aspect of risk management in the couple. Each, according to his or her HIV status, is questioned through their status as a spouse or as a parent. What are their standpoints on feeding? What factors and elements are taken into account in the couples' negotiations?

This analysis will firstly consider the initial choice of the women and men regarding infant feeding options (i) then the conjugal negotiational process about their choice (ii). We will subsequently study the manner in which the choice is put into practice by analyzing the ways in which the practices are perceived by each of the members of the couple (iii) and the link with the social environment (iv). Finally, we will look at the impact that the project has on the choice of feeding practice. We will then uncover the key factors that structure feeding practices for couples in the context of HIV.

## **The study area**

The Ivory Coast is one of the most affected West African countries by the HIV epidemic. In 2005, the prevalence rate among adults aged between 15–49 was 4.7% (EIS-CI). The Ivorian government has been actively involved in the struggle against the epidemic since the late 1980s. The strong points of its engagement have been the demand for access to treatments for the HIV infection (1996), an early involvement in the prevention of mother-to-child transmission (PMTCT) of HIV and the establishment of the first initiative for access to drugs for the HIV infection (1998) (Msellati, Vidal, & Moatti, 2001 ). Today, the prevention of the transmission of HIV from mother to

child constitutes one of the priorities of national policies in the fight against HIV/AIDS in the Ivory Coast and has been in operation since 1999.<sup>1</sup> The number of PMTCT sites has gone from 26 in 2004 to 147 in 2006.

This process takes place in a climate of sociopolitical and military conflict that struck the country in September 2002. This crisis has seriously fragilised the health care system and worsened poverty but the PMTCT projects have continued to operate. In the Ivory Coast, amongst the general population, the norm in infant feeding is prolonged and non exclusive maternal breastfeeding (Becquet et al, 2005 ). The average duration of breastfeeding is estimated at 20 ½ months. Ninety-six percent of children are breast fed (DHS CI 1998/99 ). Exceptionally, outside of the framework of HIV, decisions concerning infant feeding are sometimes made by the man when the mother is ill or has passed away (Haxaire, 2002 ).

## Methods

This article is based on field data, derived from long, in-depth semi-structured recorded interviews, collected over the course of two social-science research programs nested in a PMTCT program: DITRAME PLUS2 . This program aimed to evaluate the efficacy of perinatal interventions in preventing the risk of mother-to-child transmission (Dabis et al, 2005 ; Becquet et al., 2007 ).

The first social science project (ANRS 1253)<sup>3</sup> studied the sexual and reproductive behaviour of women who were offered HIV testing in the DITRAME PLUS project. This project is given in more detail in Annabel Desgrées du Loû and colleagues' paper in this special issue. Within this study, 33 HIV positive women and 26 male spouses participated in a qualitative survey, with in-depth interviews touching upon several topics including conjugal life, risks of HIV, counseling received on prevention, sexuality, and reproduction. The subject of infant feeding allowed for questions pertaining to the choice made and its difficulties, the practice itself and how it was carried out, the attitude of the spouse and of others around.

A first series of interviews was conducted with the women and their spouses. These women, who were included in the PMTCT program prior to 2003, benefited from free substitutes for breast milk. The interviews were conducted when the infant was aged between 4 and 9 months, then repeated a year later. For this analysis, we have retained the cases of 10 couples, five serodiscordant and five seroconcordant, with whom both interviews were conducted. They were conducted separately. The interview was proposed to the women by the personnel of the project. The partners were requested to participate in an interview by the same project members when they came to the project and after the woman had agreed. The order of interview was determined according to the availability of each of the interviewees. The interviews<sup>4</sup> were conducted in the language spoken by the interviewee, mostly in French but also in Dioula. The second series of interviews was carried out using personalised questions stemming from the contents of the first interview. Each interview was transcribed, entered in a computer, analysed and classified using Word and Excel.

The second social science research project<sup>5</sup> , held in 5 sites belonging to 5 developing countries, studied the social and cultural determinants of HIV transmission through breastfeeding. The presentation of the aims and methods of this project are given in more detail in Alice Desclaux and Chiara Alfieri's article in this journal. Within this project, a study was carried out with 30 HIV-positive women involved in the DITRAME PLUS program after March 2003.<sup>6</sup>

The population considered in these two qualitative researches was similar, involving women included in the Ditrime Plus PMTCT programme carried out in Abidjan between 2001 and 2005<sup>7</sup> . HIV testing and counselling was systematically offered to pregnant women who came for antenatal visit in one of the seven involved health centers in Abidjan. The HIV positive women as well as their infant were followed up for two years subsequent to delivery. This follow-up assured them medical, psychological and material support. They were encouraged to speak with their partner regarding the result of their test and the necessity for him to undergo screening. As for the feeding of the infant, two nutritional alternatives to prolonged maternal breastfeeding were proposed to the women in the framework of counselling, discussing the advantages and risks of each, before allowing the women to make a choice. The first option proposed was that of artificial milk. The second, exclusive maternal breastfeeding with early weaning beginning at 4 months (Becquet et al, 2007 ). Whatever their choice, the women were supported by the project health team. Before 2003, milk and other materials were supplied to them free of charge from the birth of the child, or from the time of weaning. After 2003, free milk provision was interrupted and exclusive breastfeeding was then favored by the women with economic difficulties.

Taking into account both populations will shed light on the role of men in making and applying choices of alternatives to prolonged breastfeeding in the context of HIV. We will refer to the population of "women interviewed alone" when their cases allow to nuance the analysis of this article.

## Socio-demographic characteristics of interviewees

	ANRS 1253		ANRS 1271	
	F	H	F	
Sex				
	10	10	16	
Age	23 to 40	25 to 49	23 to 31	
Educational Level				
No schooling	1		1	
Primary	4	1	7	
Secondary	3	6	7	
Post-secondary	1	3	1	
Employed	5	8	7	
Unemployed	5	2	9	
Residential status:				
Same residence	7		10	
Different residence	3		6	
Revelation of HIV to spouse	10	10	6	
Revelation of HIV status				
Individual interaction	4		6	
With a third person	6		0	
Feeding method *	AM: 9 EMB: 1		EMB: 8	AM: 8
Men participating in counselling		10		1
Men screened for HIV		10		3
HIV status	10 VIH+	5 VIH+/5 VIH -	16 VIH+	1 VIH+/2 VIH-

\* AM - Artificial Milk

EMB-Exclusive Maternal Breastfeeding with early weaning

## Results

### Factors underlying the initial choice of modality of infant feeding

All of the women and men interviewed chose a modality of infant feeding that does not correspond to the norm in the Ivory Coast.

Among the men who were in contact with the project team, once informed about the seropositivity of their wife, and irrespective of their own HIV status, almost all chose or let themselves be convinced by adopting the method of using artificial feeding.

“As soon as we knew that Madam [my wife] was HIV positive, we were told to bottle feed the baby for his own safety. I never hesitated”

HIV negative man

It is essentially the fact that their wife is HIV positive and the prevention of the child from HIV that guided their choice. At a second level, they also evoked the medical care in the project for their child and the fact that the artificial milk would be free. But, all of the spouses who did not yet know the serological status of their wife, and one spouse who was informed, opted for breastfeeding, stating that it was the norm and they themselves had been breastfed as infants.

“I was opposed from the first. All of my children were breastfed and people say that breastmilk is the most nutritious. So, for me (...) it is a question of principal.”

HIV negative man who did not yet know the serological status of his wife

For the most part, the women interviewed did not make the same choice. Among the women, whether their spouses were aware or not of their serological status, half of them spontaneously chose exclusive maternal breastfeeding with early weaning. For them, their seropositivity was not the deciding factor. Many factors were behind their choice. For the women, breastfeeding illustrates the concrete dimensions of maternity and constitutes one of the means to assume their role as mother. Others mentioned that breastfeeding was the best way to feed their infants because of the nutritive qualities of milk and the fact that maternal milk can help to combat disease. Others feared that the materials associated with artificial feeding (feeding bottles, etc.) would give rise to curiosity of the people around them leading some women to uphold the decision of exclusive breastfeeding, a means for them to keep their seropositivity secret. This fear concerns women who live in extended families and also women who have not yet succeeded in revealing their status to their partners, like the “women interviewed alone”. The other women interviewed, once aware of their HIV+ status, including those who did not receive free milk substitutes, considered that the best means to feed their infant was through artificial feeding. They justified their choice because of their wish to prevent the transmission of the disease to their child.

### Couples' negotiations about the choice of infant feeding

The interviews with the couples have shown that the initial choice of the women and men are subjected to conjugal negotiation that reveals a compromise on the part of one of the members of the couple. Indeed, the most frequent is conjugal dissension pertaining to the choice of the mode of infant feeding. In this study, this concerned almost all serodiscordant couples but also one seroconcordant couple. The negotiations differ depending on the revelation of the HIV positive status to the spouse, the HIV positive status and the spouse's involvement in the PMTCT. We shall note both types of cases in the situation of discord.

Firstly, among men informed of their wife's seropositivity and involved in the project, HIV negative men and one HIV positive man tried to convince their wives to use artificial feeding. Most succeeded in doing so. These discussions are rarely conflictual, except in couples who do not ordinarily have an open and intense dialogue.

“We didn't even really debate over it much. She wanted to.... (...) I had to convince her.”

Seronegative man

In order to convince their wife, men use different arguments. Some insist upon the prevention of the transmission of the virus to the infant. Some men ask their wife to follow the counseling of the project team. Some moderate the nutritional qualities of maternal milk and the link that is systematically made with the intelligence of the infant. Finally others prefer to not even mention HIV, in order to save their wife from any guilt she may feel, and moderate the emotional dimension attributed to breastfeeding:

“She wanted to have the baby (...) to take it to the breast. Well...I know that it shocked her but I tried to explain that there are other ways to feel and be close to a infant.”

HIV negative man

These men are able to convince their wives to use artificial milk. The women suffer but let themselves be convinced.

"It hurt...I didn't want to, but...his daddy told me over and over again... so I accepted. (...) I have wanted a baby for so long. Thank God, I have my baby now. He said no! You mustn't breastfeed him! If you breastfeed, the infant will be contaminated. (...) so, I accepted."

In the second type of case, concerning two couples, the women imposed the choice of artificial feeding on their HIV negative spouse, specifically when they had not been able to reveal their seropositivity to their spouse who were in favor of breastfeeding. These situations are always conflictual. Only the revelation of their seropositivity allowed them to convince their spouses. For example, a HIV negative spouse persistently attempted to dissuade his wife from using artificial milk to the point where she had considered leaving the conjugal home to carry out her choice. As soon as he was informed about her serological status, he immediately accepted the choice of artificial feeding regretting that she had not told him at the birth of the child.

"[it was] source of great conflict (...) but when I found out, I accepted. When I asked why she was giving the bottle, she wouldn't say anything, she would just go on feeding him the bottle."

Inversely, in the case of seroconcordant couples, the couples often agree immediately about the choice of artificial feeding for their infant. Their common priority is to protect the infant from the risk of HIV. The social context does not, however, provide easy ground to carry out such a choice.

In the case of "women interviewed alone", it appears that when the spouse is not informed about their seropositivity, women are forced to find ways to enforce their choice of bottle feeding. Some claim mammary disorders. Others, who did not live in the same household, develop economic projects in order to stay independent. In these situations, the fathers accept this feeding method.

"When I was pregnant, I was no longer selling. I thought for a while. I wondered what I was going to do to earn money to buy milk for my baby. So, I thought...I'll start coconut up again [selling] (...) he doesn't participate in anything"

Then, we have observed that when men are informed of the HIV infection of their wife and then convinced of the necessity of adopting alternatives methods to breastfeeding, they find a way to impose their choice.

### **Perception and practice of infant feeding**

Analyzing the manner in which women and their spouses perceive and manage artificial feeding reveals the way women feel about maternity. It also shows how the practice of artificial feeding involves the man in the infants' caretaking while uncovering their perception about paternity and their conjugal relationship. When they begin the artificial feeding, most women mention a moral suffering connected with the tension they feel between the regret to not breastfeed their infant and the necessity of protecting it from HIV. In this context, men claim to support their wives. The women confirm. The statements of all of the women have shown that the particular feeling of not being able to feed their infant in the manner they see as the best is the reason for their suffering. Some express a sentiment of guilt because they cannot breastfeed their baby. Messages from the breastfeeding promotional campaigns reinforce the stigmatization and further destabilize the women in their bottle feeding practice:

"It's ok...but the last time they made the film "Qui fait ça" (...) they spoke about artificial milk and then mother's milk. She [my sister] and her children started to complain [about my choice] They said the mother's breast is good, that I shouldn't give the bottle to the infants."

One woman expressed her fears about the risks of bottle feeding rendering her infant unintelligent to her husband, but he reassured her.

Once the period of bottle feeding finished, a few women state that they wanted to breastfeed their infant but all say that they did not, that they do not regret having bottle fed their baby and explain this through the healthy state of their infant. The partners interviewed share their opinion, with the exception of one man who did express certain regrets considering that the practice had rendered the infant turbulent.

Only one couple expressed their regret about the feeding method. They had chosen the method of exclusive breastfeeding with early weaning. The woman stated:

"I decided (...) it was because I didn't want my in-laws to know (...) I regret."

Her spouse, who had not known about his wife's HIV+ status at the time of birth, also regrets this choice.

The experience of artificial feeding is articulated around certain material conditions. The majority of the women having used the bottle speak of it as a constraining practice. They complain about the schedule to be respected, about having to get up at night, about hygienic requirements concerning the feeding bottle, about the baby crying, and the number of utensils associated with the practice rendering movement difficult.

The interviews with the spouses have revealed that their idea of the fatherly role drove them to participate in the care of the infant. Some followed, along with their wives, the training sessions organized by project nutritionists on how to prepare and use the bottle and do not hesitate to remind their wives of the counseling given.

Women confirm the active involvement of their partner with the material organization and have described their husband's presence as reassuring.

Some women state that their spouses prepare or help in preparing the bottle:

"At first it was hard, you have to get up at night, so we had to encourage each other to get through it. Even at 6am, he was the one to take care of everything. We take turns during the day when he is here, and at night."

Three fathers also take turns with their wife to bottle-feed their infant. One reveals his feelings about conjugal relationship when saying:

"Every time that she feeds or even washes the baby, I am right there with her (...) and when I can, I do it because I think that she must get tired sometimes, too."

HIV negative man

In the same way, women's statements, as well as those from men, have shown that most fathers watch over the correct process of artificial feeding, particularly when they think that their wife does not respect the hygienic conditions advocated or when they fear that the infant will suckle at the mother's breast during the night. The practice of artificial feeding thus entails a greater participation of the men in the care of the child. The constraints associated with bottled feeding, are often worsened by the residential situation and the number of infants to feed. One mother of triplets who lives in a shared courtyard explained that she is confronted with complaints from her neighbors when the baby cries while she is preparing the bottle in the night.

Certain women do not have the support of their partners in the material management of artificial feeding, the determining element being that their spouses are little or not involved in the project. Some men are informed about the HIV positive status of their wives, others are not. The situation concerns for the most part the "women interviewed alone". Their need for support, to prepare the artificial milk, for example, leads them to think differently about revealing their HIV positive status to their partner, and to multiply their attempts and strategies to do so.

"It is difficult to keep inside. But, I have to wait to wean the baby because he is paying for all of this, the bottles and stuff..."

### **The couple's choice for infant feeding faced with social pressures**

Almost all couples and "women interviewed alone" were regularly confronted with critiques from their family and people around them when they bottle fed their infants. These comments, mostly directed towards the women, criticized the practice of bottle feeding and its consequences on the intelligence of the infant, irrespective of the choice of the parents. In some cases, women were ostracized:

"because I wasn't breastfeeding my children... she [sister] didn't even say hello to me."

In this context, many women whose partners are informed of their HIV positive status and are involved in the project, state that they were supported by their spouses who helped them face social pressures and follow the recommendations advocated by the PMTCT team. The men, whatever their serological status, confirmed.

"I went to tell my husband. It was a difficult choice. Around us, what will the people say? But finally, we chose artificial milk. (...) they [the people around them] had a hard time accepting it (...) but he [my husband] was strong enough (...) and now, everything is ok."

A woman "interviewed alone" whose husband has participated in a counselling

The men support their spouses in several ways. Most of them help their wives to find ways to answer questions or comments from the people around them without revealing their HIV positive status. The couple becomes closer through their struggle against the pressures from the people around them. One woman said:

"We pretend that we are listening to what she [mother-in-law] says but when she turns the other way, we do what Ditrane [the personnel from the project] told us to do."

HIV positive man

This conjugal complicity is often presented by the woman as reassuring.

When the comments persist, certain spouses take the blame off of their wives by publicly announcing his part in the decision to choose artificial feeding (« We chose ... ») or by taking on the entire responsibility, as one HIV positive spouse said:

“I tried to make them understand that it was a decision that I made and that it was none of their business”

Two women declared that without the support of their partner, they would have given in to the social pressures, which reveals the precariousness of their choice.

Less frequently, the positive role of the man is also mentioned by some “women interviewed alone”, despite the fact that their spouses have no contact with the project. More rarely, when men have very little contact with the members of the PMTCT project and the couple discusses little about the feeding of the infant, women alone must manage to impose their choice of artificial feeding to those around her. Like this woman who responded when she was told that her child would not be intelligent:

“God created man. If you were born intelligent, the child will be born intelligent. If you were not born intelligent, you will remain like that.”

Only one woman interviewed said that she had never suffered from the remarks of the people around her. We shall note here that the spouse had a significant role in “preparing” the people around them in regards to this practice. Women are also confronted with remarks and comments at the moment of weaning because it is earlier than the norm in the Ivory Coast. In this case, the spouse, as soon as he is informed of the HIV positive status of his wife, offers his support in the same manner.

### **The role of the PMTCT project medical team on the parents' choice of infant feeding**

The testimonies of the women and men interviewed have shown the impact of the team project on the implementation of the recommendations concerning feeding. The ways in which women but also their spouses experience, each at their own level, their participation in the PMTCT project creates favorable conditions for adopting preventive practices. The women interviewed state that they are in frequent contact with project personnel during medical follow-up and outside of medical visits. Once informed of the serological status of their wives, almost all of the spouses interviewed and one spouse of a “woman interviewed alone”, became involved in the project. Most men accompanied their wives to medical visits or to asked for information from the team personnel at their own initiative.

One seronegative spouse insisted upon the importance of being involved in the project along with his wife and on the necessity for him to receive the same information:

“The partner should be present so they get the same information (...) as the women. The women may forget, (...) she isn't calm (...) if both are informed, when one forgets, the other can remember, at least.”

A minority of them said that they went on their own to ask for information and discuss with the project team members.

Almost all couples who are both involved in the PMTCT project speak of its importance for them. The women and the men interviewed insist upon the benefits that the project provides, apart from the medical follow-up for the woman and infant. These benefits are first and foremost of a cognitive order: the medical team provides them with information about transmission, prevention, and treatment and is always available to answer their questions.

“They gave us all the information and advice we needed.”

In addition, the psychological support through individual consultation or group discussions is also appreciated. The fact that the artificial milk is free is also mentioned as a benefit to the program. This was expressed more by men than by women. The women insist upon the quality of their interactions with the project team and describe them as being particularly strong. Women speak of warm relationships and of attentive teams where she is listened to, supported, and reassured.

“When I am here, ...they are like family.”

Most women speak of the positive impact that the project has had on the manner in which she experiences her HIV positive status. Men also appreciate the quality of interactions and perceive the project as a space of sociability:

“When I come here, I am welcomed. There have been moments when I have thought that I would be better spending time here. Everybody smiles at you, giving you the impression that it is not the end of the world.”

HIV positive man

Secondly, and consequently, the PMTCT project and the place that the project team accords to the partners allows for a conjugal dialogue about the recommendations concerning infant feeding. Almost all of the couples interviewed and 5 women said that they discuss the prevention advice together. The fact that the partners are in contact with the project team and that they sometimes accompany their wives contributes in making the project a shared experience. This makes it easier for women to speak with their spouses about the advice received. The spouses confirm:

“(…) [when] she comes, she tells me about it: ‘this is what they told me, this is what we need to do’.”

HIV negative man

The partners depend on their wives for information and sometimes ask them what they have been told by the team.

Thirdly, through its normative function, the project team becomes a reference group for the couple. Testimonies have shown that there is strong adherence to the information from the team and that the representations that are not conform with biomedicine disappear from their discourse. Women refer to the project to justify their practices or when they need information. Men adopt similar attitudes:

« I repeat the hospital's instructions and tell [my wife] to follow them... »

HIV positive man

## Discussion and Conclusion

### Study limitations

This analysis, conducted on a small scale, is illustrative. It is therefore not an exhaustive representation of the situation of couples in the Ivory Coast. Moreover, the couples that we have interviewed have a special status in that they were particularly receptive to the study.

Examining the way in which men and women manage the infant feeding options for prevention in a context of HIV transmission prevention reveals the different attitudes and common experiences of women and men.

These differences appear first on the decision-making level. For women, most decisions are taken in contradiction to the image of the “good mother” and the judgement of the people around them which leads them to let aside HIV prevention. Women's fears and hesitations reveal the difficulty of their choice. (Desclaux, Crochet, Querre & Alfieri, 2006 ). This is not the case for their spouses. Indeed, once informed about the HIV positive status of their wife and after having accepted, they unwaveringly decide to prevent any risks. These differences in their positions are also manifested in the way in which artificial feeding is put into practice. We can present the hypothesis that if HIV transmission prevention through maternal breastfeeding is the preventive advice that has been more attractive, the status of father and spouse, as is the case in several African societies, offers the man the voice and a more weighty decision than that of their wife. The pressures from the people around them are thus weaker for them. Once their decision made, the man's position is firm concerning artificial feeding. Their supporting arguments stem from the biomedical model conveyed by the project. This attitude shows their distance from cultural norms.

The fact that milk substitutes are free also seems to play a role in the construction of the men's attitude. Interviews with “women interviewed alone”, interviewed after 2003, when formula was not any more free of charge, allow us nevertheless to weigh the role of this economic factor in the men's attitude. Indeed, in certain cases, fathers choose not to oppose the choice of artificial feeding, despite its cost.

The temporal dimension in which the individuals inscribe their practice can also be a determining factor. The couples we met live the choice and the practice of artificial feeding according to a different temporality. The women live this experience more in the present whereas the men think more by projecting into the future they wish for their infants, in which their identity as father will find its full expression.

The particular involvement of the men interviewed in the feeding choices for their infant must be examined from their understanding of their role as a father, which leads them, in various ways, to participate in caring for the infant. Their attitude concerning the choice and the practice of artificial feeding could be tied to this “new paternity” being constructed in Africa. But men are also spouses. The role that they have in supporting their wives could be inscribed in this « new conjugality » that links, in certain cases, regular and supported dialogue along with manifestations of love, tenderness, and close support (Tijou Traoré, 2006 ). The men interviewed who are involved in the project, construct a positive and active role in the prevention of HIV in regards to their wife as well as their infant. Our data has illustrated their supportive role in the organization of alternative options to maternal breastmilk, as well as the management of social pressures and in providing moral support to their wives. Their attitude makes it easier for women to put prevention counseling into practice. However, we have seen that some women do not always require a supportive relationship with their spouse to adhere to project advice.

Unequal power relations often underscore the construction of this role (Héritier, 2002), seemingly resulting from tensions between the ideas of maternity and paternity. Even if in certain conjugal configurations, the women are able to impose themselves before their husband and dictate their choice, most often this is not the case. We have observed here that men's attitudes and behaviors concerning artificial feeding reveal elements of masculine domination in domestic life.

The project team that partly supports the construction of these masculine attitudes allows us to understand the involvement of men. But the couple also shares common experiences linked with the project. All of the people interviewed perceived the experience and their relationship with the staff in a positive manner. The diffusion of specific recommendations, information about preventing HIV, the medical care, and material provided, furnish a framework that women and men alike appreciate. This relational quality with the project team is all the more appreciated because it is quite contrary to the relations between health care providers and seekers generally observed and described in Sub-Saharan Africa (Gobatto, 1999).

In conclusion, this analysis illustrates the complexity involved in the mother's application of preventive counseling. It calls into play three groups of actors interacting in one system: men, women, and project team. Depending on their positioning and interaction, different and various situations concerning HIV prevention may appear.

### **Practical implication**

It is important to not leave any one party (women, men, and project personnel) out of this system. It is essential to involve all three actors and to reason in terms of the couple for the optimization of the PMTCT program. The central aspect is the dynamic of power in the couple, and more widely, the nature of conjugal relations. Indeed, according to the decisional power of women and their capacity or their possibility to impose themselves in the conjugal relation, the involvement of the spouses in counselling related to feeding may exacerbate existing unequal relations between women and their spouses. The quality of the relationship between the PMTCT project personnel, the HIV positive women, and their partner constitutes a second central aspect. The success in counseling for the couple depends on the quality of this relationship.

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### **Footnotes:**

- <sup>1</sup> We refer here to PMTCT activities that must be offered on a daily basis by health workers. (Pr Timité Konan, Journées PAC-CI, Abidjan, 31/05/07).
- <sup>2</sup> PMTCT Research program, ANRS 1201/1202. Principal investigators: François Dabis, Valériane Leroy, Marguerite Timité Konan, Christiane Welfens Ekra.
- <sup>3</sup> Research program: Connaissance du statut sérologique maternel vis-à-vis de l'infection par le VIH et comportements en matière de sexualité, de procréation et d'alimentation du nourrisson à Abidjan, Côte d'Ivoire ANRS 1253. Principal Investigator: Annabel Desgrées du Lou, Benjamin Zanou, Valériane Leroy, Christiane Welfens-Ekra.
- <sup>4</sup> We thank Héléne Agbo, Brigitte Ehoun, Antoine Gnonziba and Nestor Kouamé for the collection of the qualitative data.
- <sup>5</sup> Research program ANRS 1271: Déterminants de la transmission du VIH par l'allaitement. Etude multidisciplinaire et multicentrique. Social sciences section, coordinated by A. Desclaux in collaboration with partners in each study site. In Abidjan: INSERM 593, ISPED, Université Bordeaux 2 (Valériane Leroy, coordinator).
- <sup>6</sup> To facilitate reading, this group of women will be designated as "women interviewed alone". Their partners had not been met in the framework of the interview.
- <sup>7</sup> Both research projects were submitted to national Ethics committee. The projects complied with usual ethical recommendations: confidentiality was guaranteed and respondents signed an informed consent form.

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