

Knowledge of Breastfeeding Practices for Infants Aged 0 to 6 Months from the Municipality of Abobo (Abidjan, Ivory Coast)

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Abstract The objective of this study is to identify the difficulties related to the practice of exclusive breastfeeding of infants from birth to 6 months with a view to finding sustainable solutions for its implementation. The survey was a descriptive and analytical cross-sectional study conducted on a sample of 200 women from low-income households. The survey location is the commune of Abobo and the period indicated is from October 7, 2020 to February 7, 2021. After the survey, it was found that the difficulties related to the decline in exclusive breastfeeding are related to insufficient production of breast milk, fatigue, daily occupation of the mother, pain and cracking of the nipple, stress, poor health of the mother and atrophy of the udder. Taking into account the recommendations will boost the competitiveness of exclusive breastfeeding in relation to the nutritional status of infants by ensuring food security for infants. But also, it will allow to reach the millennium objective of the WHO and the UNICEF which is to exclusively breastfeed the infant from 0 to 6 months.

Keywords: *Exclusive breastfeeding, food plants, rural women*

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1. Introduction

Since prehistoric times, man has always found natural ways to heal himself. Among these means, a large place is given to the use of food.

Nevertheless, in many parts of the world, food insecurity is prevalent due to environmental and socioeconomic conditions that limit access to sufficient, healthy and nutritious food to meet people's energy and life needs [1,2]. In developing countries, maternal and child undernutrition is a major public health problem with consequences for human capacity development that hinder people's successful contribution to economic and social development efforts. Undernutrition caused about 45% of deaths in children under 5 years of age, mainly in low- and middle-income countries [3]. Therefore, it is imperative to seek strategies to encourage mothers to give only breast milk to infants aged 0-6 months. Among the strategies identified as having the potential to positively affect child

health and reduce infant and child mortality, breastfeeding promotion is prominent [4].

The World Health Organization (WHO) has the function of leading and coordinating global health within the United Nations system. Its recommendations regarding the duration of breastfeeding are as follows: "Infants should be exclusively breastfed for the first six months for optimal growth, development and health. After six months, given their changing nutritional needs, infants should consume safe and nutritionally adequate complementary foods while continuing to breastfeed for up to two years or longer" [5].

Exclusive breastfeeding is the action of breastfeeding an infant from 0 to 6 months of age only, without medication. According to UNICEF, exclusive breastfeeding consists of "breastfeeding the child within one hour of birth, giving him/her all the colostrum, rich in vitamin A and anti-infectious factors (immunoglobulins), breastfeeding on demand day and night, and giving him/her only breast milk during the first 6 months unless prescribed by a doctor. It also promotes optimal and harmonious growth

of the child throughout its physical and cognitive development stages [6,7]. The mother also derives important health benefits from breastfeeding, including a lower risk of breast cancer, ovarian cancer, and type 2 diabetes [8].

WHO recommends exclusive breastfeeding up to six months and partial breastfeeding up to two years [9]. According to the same organizations, in industrialized countries the average exclusive breastfeeding rate for infants under 4 months of age is 35%, in favor of bottle feeding of processed cow's milk.

In Africa, breastfeeding is practiced in 97 to 99% of cases at the birth of the newborn. However, exclusivity is still not respected during the first 4 to 6 months of life [10].

In traditional rural societies in Africa, Asia, and South America, women are valued for their motherhood and breastfeeding is an important part of this. However, certain socio-cultural practices may prevent exclusive breastfeeding, such as the belief that "bad colostrum" is dirty. Several reasons have been mentioned to explain this decline in our countries, including the loss of traditional values, the migration of families to the cities, the delay of the first feeding, and the abusive commercial pressures (advertisements) of artificial milk manufacturers [11].

The difficulties of practicing exclusive breastfeeding are certainly recorded by some authors [12,13], and solutions related to the difficulties listed have been indicated, however, these solutions remain insufficient. This work is part of the child nutrition program through the strengthening of the competitiveness of exclusive breastfeeding. Indeed, the practice of breastfeeding will ensure the health status of the breastfeeding mother which will influence the quality of milk intended for the infant. It is within this framework that we felt it was necessary to initiate this work whose objective is to evaluate the main difficulties in order to seek significant and sustainable solutions. Specifically, it is to characterize the socio-demographic state of the survey, to identify the main difficulties of the practice of exclusive breastfeeding and to bring significant and sustainable solutions.

2. Materials and Methods

2.1. Materials

A total of 200 women were recruited to form our survey sample. In addition, a survey form containing questionnaires was submitted to the women surveyed.

2.2. Methodologies

2.2.1. Study Setting

Our study took place in the commune of Abobo. Indeed, Abobo is one of the thirteen communes of the district of Abidjan, Ivory Coast. It is located in the northern sector of the district of Abidjan. It is bounded by the town of Anyama to the north, by Williamsville, Adjamé and the Deux-Plateaux district of Cocody to the south, to the east by Angré-Cocody and to the west by the Banco forest. It is located at 52600 North and 45100 West. Abobo is home to the Banco 2 railway station, on the Abidjan-Niger

railway line linking Côte d'Ivoire to Burkina Faso, as well as a bus station. It is one of the most densely populated communes in the district (about 1500000 inhabitants) with a surface area of 9000 ha (90 km²); that is, a density of 166 inhabitants per hectare.

2.2.2. Type, Duration and Population of Study

This is a descriptive cross-sectional study of breastfeeding knowledge and practices. Our survey was conducted from October 2020 to April 2021.

The inclusion criteria concerned breastfeeding mothers from low-income neighborhoods. The exclusion criteria were related to refusal to participate in the study.

2.2.3. Procedure

It consisted in interviewing women from a previously established survey form. The sampling was consecutive, so we recruited women from low-income households as we met them.

We looked for the mothers' marital status, level of education, their knowledge of breastfeeding, i.e., the time of first breastfeeding, the duration of exclusive breastfeeding, the advantages of breast milk, and the way their children were fed.

2.3. Statistical Analysis

The survey sheets were analysed using an Excel spreadsheet. The quantitative data collected were subjected to a descriptive analysis. A NEWMAN- KEULS test with a classification criterion at the 5% threshold was performed to evaluate the significant difference in means. The test was performed using STATISTICA version 7.1 software.

3. Results and Discussion

Table 1. Characteristics and practices of mothers of children aged 0 to 6 months in the commune of Abobo

Variables (n=200)	Proportions (%)
Marital status	
In couple	99.95
Level of study	100
Educated	99.95
Exclusive breastfeeding	50
Difficulties in practicing exclusive breastfeeding	
- Sick mother	4.50
- Sick infant	0.56
- Fatigue	6.77
- Busy day	3.95
- Insufficient milk production	54.23
First breastfeeding	
1 hour – 3 days	68.36
Association of plants	
Beyond 1 plant	31.63
Milk production improvement period	
24 hours	53.89
Prenatal consultations	59.88
Information about the benefits of exclusive breastfeeding from relatives	
Husband	51.97
Friends	45.19
Health personnel	54.82
Family	28.24

The mothers included in our study are mostly housewives. The majority of the mothers had attended school (100%). It is this group of mothers who practice breastfeeding the most (50%); these data are in agreement with those of [11]. This predominance of educated women (100%) in our study could be explained by the fact that the study took place in a locality in the city of Abidjan where the schooling rate of young girls is high overall [14]. This predominance of educated women was also mentioned by [15] (70.2%). The analysis of occupations allowed us to observe that most mothers worked in the informal sector or were housewives. This finding would be linked to the under-qualification of women, in relation to their low level of education [16].

A significant proportion ($p < 0.05$) of the respondents were in a relationship (99.95%). This result is in agreement with those of [17] (86%) and [15] (73.7%). Indeed, this finding suggests the integrity of the family fabric, which is essential for the development of the child, and underlines the crucial role that the support of the spouse (51.97%) could play in the breastfeeding of the child.

According to the study, the respondents were confronted with several difficulties, notably the mother's illness (4.5%). The difficulty related to health status was reported in the work of [11]. This author recorded a proportion of (10%). The non-practice of exclusive breastfeeding was also related to difficulties such as illness of the sick infant (0.56%), fatigue (6.77%), daily occupation (3.95%) and insufficient breast milk production (54.27%). Regarding the insufficiency of milk production, it was identified as one of the significant difficulties ($p < 0.05$) of the practice of exclusive breastfeeding. This result is consistent with those of authors [11,13,15,17,18,19]. This difficulty largely led women to want to abandon exclusive breastfeeding. The respondents wanted to subject their infants to non-exclusive breastfeeding, which could be composed of mixed or artificial breastfeeding. These types of breastfeeding could lead to infections and illnesses in infants. Indeed, mixed breastfeeding or mixed feeding means receiving both breast milk and another food or liquid, including water, non-human milk or infant formula before the age of 6 months [20,21,22] is widespread in many countries. However, this practice can pose a health risk to infants because it increases the risk of diarrhea and infectious diseases. Mixed feeding, particularly when solid or liquid food consisting of water or juice is provided to complement breast milk, may contain pathogens [2,13,22].

According to the results of this survey, mothers in low-income neighborhoods do not breastfeed until six months because of the informal sector they work in, as they are very busy with daily chores in order to ensure their daily life. If the tasks they perform are far from their homes, this will affect the proper practice of breastfeeding, as they will not have the time required to breastfeed their infants continuously. Regarding the difficulties that do not facilitate the implementation of exclusive breastfeeding of infants from 0 to 6 months, insufficient production of breast milk among breastfeeding mothers is the main difficulty recorded (54.23%). These results are in agreement with those of [15,18] who noted that insufficient milk production was among the major difficulties encountered

by breastfeeding women. 50% of the respondents were able to breastfeed their infants exclusively from 0 to 6 months. The rate of 50% recorded in our survey corroborates that of the work of [23] conducted in health centers in Abidjan. Research has shown that exclusive breastfeeding is most commonly practiced with 50% of mothers. In fact, this view is widely shared in discussions of infant and young child development around the world. Indeed, breast milk is recognized as the optimal diet for infants under six months of age in that it reduces stunting and ensures harmonious physical and mental development [24]. In African countries, interventions to improve maternal nutritional status and breastfeeding rates are needed to optimize health outcomes for infants [25,26]. The use of food plants is found to be important as it enabled in a reduced time of 24 hours, a proportion of 31.63% of women overall to improve milk production according to our survey.

The high level of education is due to the rigorous schooling policy in Abidjan and its surroundings. During the surveys, concerning the period at which the infant was suckled for the first time, (53.89%) of women suckled their infants between the first hour after delivery and the third day. This first suckling is made up in majority of the primitive milk called colostrum. Indeed, colostrum is primitive milk secreted during the first 3 to 5 days of lactation [13,27]. The infants whose mothers were subjected to the surveys received colostrum because all women breastfed their infants before the third day. At birth, colostrum meets the essential needs of the infant. It provides nutrients to cover the infant's needs qualitatively and quantitatively. It also provides antibodies that allow the child's body to fight against diseases and infections.

The results for the period from the first hour to three days of breast-feeding after delivery are 53.89%. This indicates that more than half of the infants were able to benefit from colostrum, the flow of which was limited after three days following delivery. All the difficulties recorded must be taken into account in the search for sustainable solutions. The solutions that will be listed must achieve the World Health Organization's goal of exclusive breastfeeding of infants from 0 to 6 months. In fact, WHO and UNICEF recommend exclusive breastfeeding up to 6 months. Thus, WHO and UNICEF promote breastfeeding with the dissemination of the "10 conditions for successful breastfeeding", within the framework of the Baby Friendly Hospital Initiative (BFHI). Moreover, the crucial role of breastfeeding is at the heart of the global strategy for infant and young child feeding [28]. Côte d'Ivoire, in its National Strategy for Infant and Young Child Feeding, has defined the Baby Friendly Hospital Initiative (BFHI) as an essential component of the promotion of exclusive breastfeeding.

Health personnel were an important support related to the significant disclosure of the benefits of exclusive breastfeeding practice. The contribution of health personnel was significant ($p < 0.05$) at 54.82%, which can be explained by the construction of several health centers in working-class neighborhoods to facilitate access to care for the population. The presence of health centers in the neighborhoods and the motivation of the women made it possible to note a significant proportion ($p < 0.05$) relating to prenatal consultations which is 59, 88%. These

significant consultations can be to the advantage not only of mother-child health after childbirth. Concerning the support of the entourage to the implementation of the practice of exclusive breastfeeding of the infant from 0 to 6 months, according to the results of our study, the proportion of the intervention of the husband recorded a significant proportion of 51.97%. Indeed, the high population density in precarious neighborhoods, which favors openness to each other, could also be a valuable contribution. Therefore, we believe that the sensitization of both spouses and the population should not be neglected because they could contribute to restoring a climate favorable to exclusive breastfeeding. These similar remarks were reported by author [17].

4. Conclusion

Our results have identified the challenges to the practice of exclusive breastfeeding for infants aged 0-6 months. These include maternal health status, daily occupation, maternal fatigue, stress, and inadequate breast milk production. The main problem identified is the lack of milk production. To address the main difficulty listed, the women surveyed used most food plants. In fact, registered plants are generally composed of wild food plants, tubers, cereals, vegetable leaves and legumes. Taking into account all the difficulties recorded will make it possible to achieve the Millennium Goal of exclusively breastfeeding infants from 0 to 6 months in order to improve Mother-Child Health. However, a study of the nature of the food plants used would be necessary in order to assess the contribution of plant species and families to the control of milk dryness in the udders.

Our study was intended to contribute to the development of a new approach to breastfeeding issues with a view to improving exclusive breastfeeding practice.

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