



Knowledge of Mothers of Children from 0 to 23 Months and Perceptions of Grandmothers and Fathers on Breastfeeding in the Village of Cella in Burkina Faso

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Abstract: Introduction: Appropriate feeding of infants and young children determines their current and future health status and can be influenced by the knowledge and perceptions of the population. The aim of the study was to assess the level of knowledge of mothers as well as the perception of fathers and grandmothers on breastfeeding in Cella, a rural commune of Tenkodogo. Method: The study was conducted with 102 people including 47 mothers, 30 fathers and 25 grandmothers from January to February 2019. Data collection was carried out using questionnaires and a semi-open. Result: It appears that 10.6% of the mothers surveyed knew that the time for early breastfeeding should be less than one hour after delivery, 66% said that colostrum is good for health, 40.4% think that it is possible to practice exclusive breastfeeding. The study showed that traditional perceptions of colostrum as "dirty milk" and the use of water and other fluids before 6 months of age still persist. For fathers and grandmothers, water is associated with good health and herbal teas are associated with the baby's need for cleansing and purging. Conclusion: Cultural practices and lack of knowledge about breastfeeding impact children's health hence the implementation of nutrition-based promotional activities could support efforts towards optimal breastfeeding practice. breastfeeding.

Keywords: Breastfeeding, Knowledge, Perception, Grand-Mothers, Fathers, Burkina Faso

1. Introduction

Breastfeeding is recognized internationally as the best way to feed an infant due to its beneficial effects on infant growth, immune system and cognitive development. In addition, the reduction in morbidity associated with breastfeeding has significant repercussions on the costs of health services [1]. Non-breastfed children grow more slowly compared to those who are adequately breastfed in developing countries [2]. Worldwide, according to the WHO, 1.3 million deaths could be avoided each year if exclusive breastfeeding were practiced until

the age of six months [3] and optimal breastfeeding until the age two could prevent 823,000 deaths each year [4]. The levels of information and knowledge about breastfeeding would constitute barriers or factors favoring good practices. These practices vary from country to country and from region to region within the same country. Only 40% of children aged 0-6 months were exclusively breastfed worldwide in 2017 [5]. In Burkina Faso, the 2018 national nutrition survey using the SMART methodology revealed that the prevalence of exclusive breastfeeding among infants 0-5 months was 55.8% and the proportion of children 6-23 months benefiting from a minimum acceptable feeding practice was 18% [6]. The population's lack

of information and the persistence of a certain number of prejudices could be the cause. This study aims to investigate the knowledge of mothers and the perceptions of fathers and grandmothers on breastfeeding in rural Burkina Faso.

2. Materials and Methods

2.1. Setting and Study Population

This was a descriptive cross-sectional study based on a questionnaire and a semi-open interview guide for individual interviews from January to February 2019. The study targeted mothers of children aged 0 to 23 months, the fathers as well as the grandmothers residing in the village of Cella. It involved a total of 102 individuals, i.e. 47 mothers, 30 fathers and 25 grandmothers from all neighborhoods of the village of Cella. This was a non-random sample, i.e. taking into account voluntary households with a child in the required age group (0 to 23 months) until data saturation. For the collection of data in the field, the community-based health worker was called upon to facilitate the appropriation of the objectives of the study by the population and the location of households was made using the register. monitoring of community-based health workers. Were included in the study, all resource persons (mothers, fathers and grandmothers) of households with an infant aged 0-23 months and who gave their consent after being informed of the principles of the study.

2.2. Data Gathering

Information on socio-demographic characteristics and obstetric history of mothers, and knowledge about breastfeeding were collected using a survey form. The discussion grid focused on questions related to the specific objectives. From the guide, semi-structured interviews with a series of open questions were made in order to allow participants to answer freely without any influence. All interviews were audio-recorded using a dictaphone, and this procedure allowed the interviews to be fully transcribed for analysis.

2.3. Data Processing and Analysis

The data collected using the questionnaire were entered and analyzed using the epidemiological statistical software Epi Info version 3.5.1. The recordings of the interviews were fully transcribed and the verbatim obtained were subject to thematic content analysis. The thematic analysis obtained was done in two stages: the identification of significant ideas and their categorization. The identified themes were classified into opinions, attitudes and stereotypes for a plausible interpretation, demonstrating a concordance between the identified factors.

2.4. Ethical Considerations

The informed consent of each participant was requested after they became aware of the voluntary, free and unpaid nature of the study; the investigation did not begin until consent had been obtained. The privacy of each participant was protected by the anonymity of the questionnaires.

2.5. Limit of the Study

To assess the level of knowledge of mothers about breastfeeding, the choice of a questionnaire survey composed of closed multiple-choice questions limited the answers. The results obtained cannot be extended to the wider community because they only provide a range of views and opinions.

3. Results

3.1. Sociodemographic Characteristics and Obstetric History

The average age of the mothers interviewed was 25.57 ± 6.4 years with extremes of 18 and 40 years and a median of 23 years. It was reported in this study that six out of ten mothers (61.7%) had no schooling. The vast majority of mothers have no professional occupation. More than eight out of ten mothers (89.4%) are housewives. The average number of children in the household is about 3 children with extremes of 1 and 7. Primiparous mothers represented 27.7% of the mothers included in the study. All of these results are shown in Table 1.

Table 1. Socio-demographic characteristics of mothers.

Variables	Numbers (n=47)	Percentages (%)
Age class		
18 -25 ans	26	55,3
25 -34 ans	15	32
35 - 40 ans	6	12,7
Education level		
Primary	11	23,9
Secondary	7	14,4
No schooling	29	61,7
Professional occupation		
Housewife	42	89,4
Student	4	8,5
Civil servant	1	2,1
Parity		
Primiparous	13	27,7
Multiparous	34	72,3

At the level of mothers with more than one child, the age difference between the newborn and his brother or sister who precedes him was less than two years in 41.2% of children and 35.3% age difference between two and three years. Only 23.5% have an age gap greater than or equal to three years as shown in Figure 1.

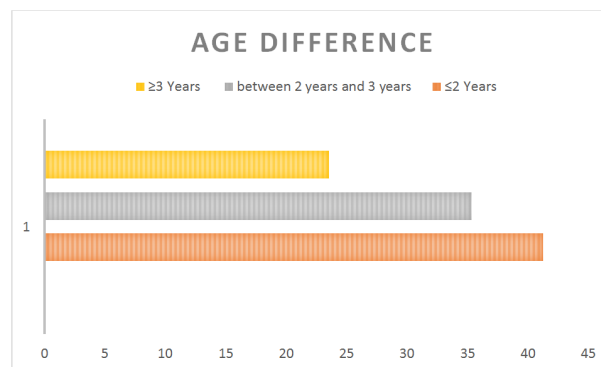


Figure 1. Age difference between the last two children.

3.2. Knowledge of Mothers About Breastfeeding Practices

In all of the opinions collected in this study, only 10.6% of mothers thought that the ideal time for the latching of newborns after birth should be less than one hour as shown in Figure 2. However, all mothers interviewed were unaware of the benefits of early breastfeeding. All the mothers thought that the importance of early latching was to prevent the child from crying. One of the topics discussed with the mothers was about colostrum and it appears that all the mothers

(100%) declared having noticed the colostrum among which 66% (Table 2) thought that the colostrum is good for the infant.

Table 2. Opinions of mothers on colostrum.

Is colostrum good for the child?	Numbers	Percentages (%)
Yes	31	66
No	16	34
Total	47	100

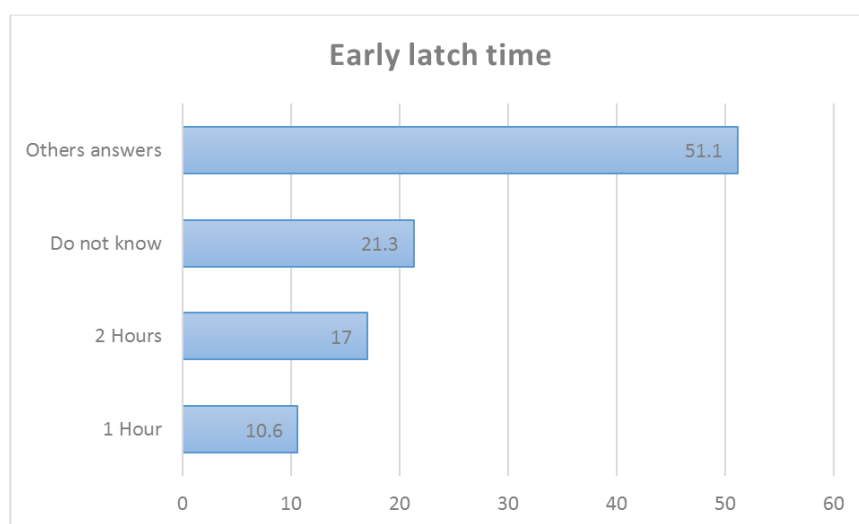


Figure 2. Advice on early breastfeeding.

The opinions of mothers on exclusive breastfeeding were collected using several questions. When asked if it was possible to practice exclusive breastfeeding, 40.4% of mothers answered in the affirmative, as shown in Table 3 below. They were asked about the benefits of exclusive breastfeeding and agreed that exclusive breastfeeding protects against infections and strengthens the bond between child and mother. 59.6% of the mothers in the study said that it was impossible to practice exclusive breastfeeding. The reasons for the impossibility expressed by the mothers were the following: for these mothers, it is not only essential to give water to the child under penalty of dying of thirst, but also to associate decoctions to allow a good baby growth.

Table 3. Advice on exclusive breastfeeding.

Ability to practice exclusive breastfeeding	Numbers	Percentages (%)
Yes	19	40,4
No	28	59,6
Total	47	100

3.3. Perceptions of Fathers and Grandmothers on Breastfeeding

In this study, a total of 25 fathers and 30 grandmothers were interviewed. The age range of the resource persons who participated in the interviews varied between 26 and 54 years old for the fathers and between 45 and 70 years old for the grandmothers. Education was primary for educated fathers and no education for grandmothers. Trade was the main

source of income for fathers with a professional occupation.

Breast milk is the best food for the newborn: this conviction has been widely expressed by almost all fathers and grandmothers. However, according to the respondents, colostrum should be discarded because it is dirty, impure or bad for consumption and would cause diarrhea and vomiting in the newborn, which is why it should be milked and discarded. Here are some testimonials:

A father reported: "As far as the feeding of the newborn is concerned, we must give him breast milk, but first we must milk the colostrum and throw it away because it is not good for the health"

A grandmother explained: "We have to give her breast milk, but we have to throw away the colostrum because it is bad for the child, so while waiting for the woman's milk to turn white, that is to say the normal color of the milk, during this period we must give hot water to the child while waiting for the good milk."

In both groups of respondents, to the question "how important is breastfeeding", here are some answers:

"Breastfeeding is very rich more than other foods such as bottles. It's good for the baby because that's what we drank and we're healthy right now."

"Breastfeeding is important because it gives strength to the baby and contains many vitamins necessary for the growth of the child. It has always been the most used way of feeding children. However, the mother must first be well nourished so that her milk contains the vitamins necessary for the baby."

Regarding exclusive breastfeeding, for most fathers, it is not possible to enforce exclusive breastfeeding. For some, it is possible to no longer give infusions to babies because children no longer react to traditional treatments and also the therapeutic plants used in the past are disappearing. However, water for them is life and that no human being can live on these earth six months without drinking given the climate in which we face every day. Here are some quotes collected:

A father explained: "It is not possible to apply this recommendation in our hot regions. It is necessary to give water to children. For example, if a mother is malnourished and does not have enough milk, she will give water to the child in compensation. We cannot bear to watch a child up to six (6) months without drinking water."

Another said: "No, we give him water relying on God. The child is thirsty, always wet the child's mouth before giving him milk. Also, you know if you have just given birth, there is yellow milk coming out of women's breasts and this milk is not good for the child so while waiting for the best milk to come, you give water warm to babies so it is almost impossible for us to give only breast milk until six months." For other fathers and almost all grandmothers, in addition to water, infusions and decoctions have their place in the survival of the child, as evidenced by some answers:

A grandmother answered: "No, we have to treat children with plants. See why kids get sick a lot these days? It's because Westerners have come to flatter us and we can't do anything to help the little ones. Before when someone dies, it was a person of the third age, but nowadays it is the children because we follow blindly forgetting our customs. Otherwise, how can a child live six months without drinking water since milk is fatty. As the baby can't speak reason why we don't know that not drinking water is not suitable for him. As long as I live, no one will do this in my backyard, it's not possible."

4. Discussion

As part of this study, the average age of the mothers interviewed was 25.57 ± 6.4 years with extremes of 18 and 40 years and a median of 23 years and the majority (55%) of these mothers had between 18 and 25 years old. According to the latest statistics from the ministry in charge of women's issues in 2016, the average age at marriage is 18 in rural areas for women. This could explain why more than half of the women were under 25 years old. The level of education of the woman would influence the nutritional status of the children by modifying the behavior of the mother in the direction of improving the health of the children [7]. According to the continuous multi-sectoral survey carried out in Burkina Faso in 2014, the household schooling rate in Burkina Faso was 38% in rural areas, which could explain this result. Only 38.3% of mothers have been educated. This situation of women is likely to jeopardize the momentum of socio-sanitary and economic development. Schooling would enable the mother to be able to read and understand the messages displayed in the health facilities and to make better use of them, to acquire health knowledge and to break with traditional practices. The

mother's occupation is the main activity that gives her the most income or uses the most time. In the present study, 89.4% of mothers reported having no professional occupation. This result is close to that reported by Eman and collaborators (93.2%), in rural Egypt [8]. The high proportion of mothers who are professionally inactive in this study could be related to the low level of education and the rural residential location, hence the interest in educating young girls in order to enable them to increase the possibilities of exercising a gainful employment and thereby have financial autonomy. Women's education has positive effects on household life; it allows women to have fewer children and to take better care of them from a health and nutrition point of view thanks to better application of hygiene rules [9].

The level of knowledge on the delay of early breastfeeding and its interest is very alarming in terms of good practice of optimal breastfeeding. The result obtained in the present study (10.6%) is lower than that reported by Eman and collaborators (79.8%) in Egypt [8]. On the other hand, it is similar to the result reported by Chaudhary (10%) in Nepal in a hospital setting among mothers visiting their children for preventive care [10]. More than half of the mothers (51.1%) said that the latch should be done after she and the baby have taken their baths after delivery because they feel that they are not clean for breastfeed their babies without the risk of infecting them in any way. After the bath, they should have a little rest before breastfeeding. This could be explained by a lack of awareness during pregnancy on early breastfeeding, hence the interest of increasing awareness sessions on optimal breastfeeding to improve the care of parturients. The proportion of mothers (34%) who declared that colostrum is not good for infants is due to the lack of messages on its benefits and the traditional practices that still exist. In Mossi country in Burkina Faso, colostrum is often considered to be a "bad milk", a "pregnancy milk" that should not be given to the child [11] at risk of causing diarrhea in the baby. To protect children, we must promote the education of mothers on the interest of colostrum which constitutes the first vaccine for the baby, hence the interest of improving the care of pregnant and breastfeeding women by emphasizing the benefits of breastfeeding in all its forms in pre and postnatal consultation. The advantages of exclusive breastfeeding listed by mothers who said it was possible to practice it are similar to those found by Eman and collaborators in Egypt among breastfeeding mothers who also admitted that breastfeeding protects against infections, and believed that it strengthens the bonds of the mother-child couple [8]. The same observation was made by Metiboba and collaborators in the North Center of Nigeria, in a hospital environment with breastfeeding mothers who came for an immunization session for their children [12]. In general, the effects of exclusive breastfeeding on the prevention of infections in the child and on the strengthening of the emotional bonds between the child and the mother are well known to mothers. Moreover, in this study, it appears that few mothers know the role of exclusive breastfeeding in the prevention of postpartum hemorrhage and in contraception. These same

results were found in the study conducted by SOME entitled "the challenge of adopting exclusive breastfeeding in Burkina Faso in 2020" [13]. These perceptions of mothers on the impossibility of practicing exclusive breastfeeding in rural areas could be explained on the one hand by the persistence of certain practices within the community and on the other hand by the lack of awareness on the importance of exclusive breastfeeding during and after pregnancy. A good knowledge of mothers on all the advantages of exclusive breastfeeding is very important, as it would ensure better adherence and effective practice.

The fathers and grandmothers included in the study had a fairly good knowledge of the importance of breastfeeding only for the child. They knew that breastfeeding is beneficial for the health of children. Fathers' and grandmothers' preferences can be a determining factor in women's infant and young child feeding decisions, which was encouraging to see that both fathers and grandmothers who participated in the study viewed breastfeeding as natural and healthy for their children. However, no father or grandmother has discussed the health benefits for mothers that come from breastfeeding. This may be due to the lack of awareness of the latter. To promote good breastfeeding practices, infant and young child feeding education and services should be delivered at the community and family level rather than just to mothers. Fathers as well as grandmothers would benefit from learning more about breastfeeding including information on the benefits of breastfeeding for children and mothers, known strategies to facilitate breastfeeding, and techniques for evaluate the well-being of their child in order to ensure better health and optimal development. Fathers and grandmothers with a fairly good knowledge of the benefits of breastfeeding seemed less aware of exclusive breastfeeding or the links between exclusive breastfeeding and health outcomes. These same thoughts were found in a study carried out in the communes of the central plateau region in Burkina Faso in 2021 [14]. The persistence in the use of infusions and decoctions could be explained by a lack of knowledge of the importance of the recommendation not to give any liquid other than milk to drink to a child before the first six months. The practice of breastfeeding and infant feeding are clearly influenced by traditional practices, dictated by resource persons at household level [15] hence the obvious interest in encouraging popularization of all the components of breastfeeding (early breastfeeding, colostrum donation, exclusive breastfeeding and its continuation up to the age of two years, see more) and practical methods of breastfeeding optimal during prenatal and postnatal consultation sessions as well as in awareness campaigns with resource persons in understandable and persuasive language.

5. Conclusion

Cultural practices and lack of knowledge about early initiation of breastfeeding, the importance of colostrum, and exclusive breastfeeding for the first six months (without water, herbal teas or other liquids), impact the health of children. Also mothers-in-

law and fathers are the main decision-makers regarding breastfeeding and nutrition at the family and community level. Mothers-in-law are the primary source of advice on infant feeding while fathers are the decision-makers at the household level. In view of the results of this study, the contribution of health services and agents to information, awareness and support for women using health services for whatever reason could contribute to positive paradigms in terms of breastfeeding, and thus raise the level of related indicators. Also, the implementation of community-based promotional activities centered on community and multi-sectoral units for nutrition could support efforts in favor of optimal breastfeeding practice. In addition, other studies could better elucidate all the factors associated with breastfeeding.

Conflicts of Interest

The authors do not declare any conflict of interest.

Authors' Contributions

All authors contribute equally to the conception and design of the study.

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