

Research Application Summary

Influence of activity time, socio-cultural and institutional factors on the exclusive breastfeeding practices among mothers of children aged 0-5 months

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Abstract

This was a cross-sectional study carried out between July and December 2017 in the communes of Aguegues and Zakpota in Benin and aimed at investigating the influence of activity time, socio-cultural and institutional factors on exclusive breastfeeding (EBF) practices among mothers of children aged 0-5 months. Participants were breastfeeding women with children aged 0-5 months, and others resources members of the households. Data were collected from 200 households and was based on a mixed-methods approach, combining quantitative and qualitative aspects. Results revealed that less than half of infants, 47% (Aguegues) and 41% (Zakpota), were exclusively breastfed. In Zakpota, neither the time of the mothers' activity, nor the socio-cultural and institutional factors, nor the advice received on EBF influenced the rate of EBF. Nevertheless in Aguegues, only sociocultural factors and advice received on EBF were significant. Research suggested that the EBF rate could be increased by improving the support of women's relatives and health workers' knowledge in terms of good EBF practices.

Keywords: Advice received, commune of Aguegue and Zakpota, health workers, households' resources members, rate of exclusive breastfeeding

Résumé

Ceci était une étude transversale réalisée entre juillet et décembre 2017 dans les communes d'Aguegues et de Zakpota au Bénin et visant à enquêter sur l'influence du temps d'activité et des facteurs socioculturels et institutionnels sur les pratiques d'allaitement maternel exclusif (AME) chez les mères d'enfants âgés de 0 à 5 mois. Les participants étaient des femmes allaitant les enfants âgés de 0 à 5 mois, et d'autres personnes ressources, membres des ménages. Les données ont été recueillies auprès de 200 ménages et ont été basées sur une approche de méthodes mixtes, combinant des aspects quantitatifs et qualitatifs. Les résultats ont révélé que moins de la moitié des nourrissons, 47% (Aguegues) et 41% (Zakpota), étaient exclusivement allaités au sein. A Zakpota, ni le moment de l'activité des mères, ni les facteurs socioculturels et institutionnels, ni les conseils reçus sur l'AME n'ont influencé le taux d'AME. Néanmoins, à Aguegues, seuls les facteurs socioculturels et les conseils reçus sur l'AME avaient un effet significatif. L'étude suggère que le taux d'AME pourrait être augmenté en améliorant le soutien aux proches des femmes et les

connaissances des agents de santé en termes de bonnes pratiques d'AME.

Mots-clés : Conseils reçus, commune d'Aguegue et de Zakpota, agents de santé, personnes ressources dans les ménages, taux d'allaitement exclusif

Introduction

Exclusive breastfeeding during the first six months of a newborn's life is recommended by UNICEF and World Health Organization (WHO) to achieve optimal outcomes (UNICEF and WHO, 2017). It is one of the most effective investments that a country can make to ensure better health for its population: \$1 invested in breastfeeding generates \$35 in economic returns (UNICEF and WHO, 2017). At the individual level, the benefits of exclusive breastfeeding (EBF) cannot be overlooked as there is strong evidence of its short and long term effects on mother-child pair health. Indeed EBF has been shown to promote neonate and infant growth, and reduce two of the leading causes of child deaths (deaths associated with diarrhoea and acute respiratory infections) (Arifteen *et al.*, 2001). Breastfeeding mothers are less likely to develop breast cancer, ovarian cancer, type 2 diabetes, and heart disease. Aside from that, breastfeeding has been reported for its positive psychological effects in breastfeeding mothers: mood and stress reactivity, blood pressure and heart rate and quality of sleep (Groer, 2005).

Although very beneficial for the mother-child pair, breastfeeding practice is far from being universal. The percentage of infants less than 06 months of age exclusively breastfed is 41% globally, far lower than the 2030 global target of 70% (Opie and Simmer, 2004). In Benin, the same trend is observed. According to the fifth Demographic Health Survey, 42% of infants aged 0-6months were exclusively breastfed during the period 2017-2018, lower than that in 2006 (43%) (MPD and INNSD, 2019). Regarding the unsteady increase of the EBF rate, there is a need to research and better understand factors affecting it for effective actions. Several studies have documented EBF influencing factors in many developing countries.

These factors are of a wide range and vary from individual level to community one. It was found that giving birth in health facilities, and receiving breastfeeding counselling during pregnancy (Daly *et al.*, 2014) are enabling factors towards EBF practice. On the other hand, factors such as maternal education, occupation, socio-economic status, and marital status can hinder EBF practices to some extent. Mothers who have a job (Daly *et al.*, 2014) and high education diploma, are wealthy, are unmarried (Iffa and Serbesa, 2018) are less likely to exclusively breastfeed their infants. Furthermore, studies revealed that the birth attendant, family and traditional practices as well as poor community acceptability of EBF can affect optimal breastfeeding practices. Mothers-in-law, some unsupportive health workers and traditional birth attendants believe that babies cannot live without water and therefore are the main barriers to EBF practice (Lasdel, 2012).

The development and improvement of sustainable policies and strategies for the promotion of exclusive breastfeeding are rooted in behavioural change. This behaviour change is a long process based on living conditions, beliefs and determinants mentioned above. This study investigated the influence of activity time, socio-cultural and institutional factors on EBF practices among mothers of children aged 0-5 months in the commune of Aguegue and Zakpota (Benin).

Participants and methods

Study design. This was a cross-sectional study carried out between July and December 2017 in the communes of Aguegues and Zakpota (Benin). Mothers of children aged 0-5 months were the main target. Data collection was based on a mixed-method approach combining quantitative and qualitative data on the level of knowledge, attitudes and practices of mothers.

Sampling. Participants were lactating women, fathers of children, grandmothers, mothers-in-law, aunts and other resource persons of the household. The number of lactating women included in the study was determined according to the formula: $n = (Z\alpha^2 * p * q) / (i^2)$ with n = sample size, p = prevalence of EBF in Benin in 2014 that was 41.4%; $q = (1 - p) = 0.586$, $Z = 1.96$ with 5% risk error, i = (desired accuracy) = 10%. A sample size of 200 women was considered sufficient to assess the variables studied for 100 lactating women per study area (Aguegues and Zakpota).

Data collection. Main data collected were on respondents' socio-demographic characteristics; foods infants ate the day before the survey; women's knowledge, attitude and practice about early initiation to breastfeeding and EBF. Information on mothers' work and rest duration (based on a 24h recall of the activities carried out); feeding duration (mother and child); EBF adoption enhancing and limiting institutional and sociocultural factors were collected. Furthermore, data related to the aforementioned were collected through the barrier analysis approach focused on the areas of initiation to breastfeeding and the EBF practice. Quantitative data were collected from semi-structured interviews using a modular questionnaire in electronic format in the ODK / Kobo collect application.

Statistical Analysis. Data were processed with SPSS software version 20. Values associated with probability (p) < 5% were considered significant. EBF rate was obtained by crossing the proportion of children who have consumed only breast milk in any way (directly from the breast or pressed in a bottle, bowl etc.). Descriptive statistics were used to determine means, proportions and other parameters of dispersion variables such as standard deviation, minimum and maximum.

Associations were tested using the Pearson chi-square correlation test. Hence, EBF practice was crossed with variables such as sociocultural factors and the activity time of mothers. In addition to interviews, feedings were observed at home for 24 hours. This method was conducted to document breastfeeding practices and behaviours: breastfeeding duration, daily frequency, mothers' activity time, mothers' practices during feeding. The activity time was compared with the productive and reproductive activities of mothers of children based on 8 hours of working time.

Socio-cultural factors were calculated on a scale of 1 to 5 according to the degree of support for breastfeeding and domestic tasks by the spouse, the grandmother or any other elderly person around the family breastfeeding woman.

Results and Discussion

Respondents' characteristics. In both study areas (Aguegues and Zakpota), there were many monogamous brides (75% and 59%) and uneducated respondents (60% and 58%) than there were polygamous bride (24% and 39%) and educated respondents (33% and 42%). Ouemin (47%) and Fon (95%) were respectively the dominant sociolinguistic groups in Aguegues and Zakpota.

Respondents in Zokpota had more diversified income sources (89%) than those of Aguegues had (47%).

EBF practice and child feeding. Most of the infants, 96% and 97%, were respectively breastfed in Aguegues and Zokpota. This rate is similar to that of the EDSB-IV report which revealed that 97% of children were breastfed in Benin. The EBF rate was 41% in the municipality of Aguegues and 47% in the municipality of Zokpota. This rate is much higher than that of EDSB-IV (33%) and similar to the 41.4% in 2014 (INSEA, 2014). Although these rates are higher than the national one and could probably be the result of numerous nutrition activities, notably the promotion of EBF through IEC sessions organized by PMASN facilitators in all the villages participating in this study.

However, apart from breast milk, 36-42% of the children surveyed consumed herbal tea and a significant number of children had already consumed food outside of breast milk and 45% of this number had received water. These results are similar to those of a study conducted in Alibori, which reported that children's mothers do not practice EBF because breast milk is considered as a simple food of the newborn that plays only biological function to promote the physical growth of the child until about four months. Conversely, it is rather herbal teas that play social and ecological functions: protect the child against invisible persecutions of "spiteful tongues" and the aggressions of the local climate. These teas also play physical functions which consist of strengthening the child, easing its fine motor and dentition. Breast milk and herbal teas play therefore distinct but complementary functions. All these functions are essential for the survival of the child (Lasdel, 2012).

Maternal knowledge and attitudes about breastfeeding. Our findings revealed that almost all respondent mothers fed breast milk as the very first food a newborn should be given. Most of them have heard about EBF, know its meaning and breastfeed their children at the request of the latter. More than three-fourths (¾) of mothers were aware of the fact that it is necessary to breastfeed their children for six months and said that breast milk can cover all the children's dietary needs during the first six months of a child's life. Yet, half of the mothers believed that the greatest benefit of EBF is the growth of a healthy child.

Less than 15% of mothers think that EBF strengthens the emotional bond between their child and whereas others ignore it. When it comes to going to work, most of the mothers think that they should go along with their children and use health services as well especially when facing breastfeeding issues. Few mothers (31%) in Aguegues and a greater number (82%) in Zokpota believe that hand expressing breast milk helps the milk to let down. The EBF practice as well as the children's breastfeeding on demand is not perceived as difficult by most of most mothers.

Influence of activity time. Mothers' activity time did not significantly influence EBF practice neither in Aguegues ($P = 0.165$) nor in Zokpota ($P = 0.259$). Our findings are not consistent with those reported on gender roles and norms in production, consumption and health in Benin (Ravaozanany *et al.*, 2016). Most mothers rely on small businesses generally done near or in their house. Conversely, a study conducted in Australia on the benefits, barriers and enablers of breastfeeding showed that breastfeeding women who have to go back to their work constituted a main barrier to its breastfeeding practice (Daly *et al.*, 2020). The difference in our

results is because most of our respondents' workplace is not far from home and this enables them to easily breastfeed their children.

The rural economy of Benin is mainly based on agriculture which provides up to 35% of the domestic gross product (GDP). Agriculture is practised by both men and women in rural areas. When women give birth, they are granted some as they retire from all farming and other activities that provide them with income. They then focus only on breastfeeding practice and reproductive activities, although there are cases of those who are not assisted by relatives. As for those who have their mothers or mothers-in-law next door, they devote themselves to their infant breastfeeding and their self-care.

Influence of sociocultural and institutional factors. Findings revealed that at least one in two women received medium or high support from their neighbourhood (own mother, husband or mothers-in-law). However, it was only in Aguegues (Table 1) that socio-cultural ($P = 0.01$) and institutional factors ($P = 0.015$) were found to be significant regarding EBF practices among children's mothers. Grandmothers are very supportive as they stay alongside children's mothers for the care of their grandchildren and assist in household chores. This is because grandmothers and the elderly are getting more involved in EBF promotion programme and any activity related to family health.

Our results are different from a study conducted in Kenya which found that mothers-in-law and traditional birth attendants are important barriers to the EBF practices. In reality, they found that babies cannot live without water. The beliefs and representations of the neighbourhood about breastfeeding, the socio-cultural pressure for the introduction of water or herbal tea into infant feeding are barriers to EBF practice (Lasdel, 2020). Regarding the influence grandmothers can have on EBF practice, they can be used as a key element to promoting, protecting and supporting breastfeeding (Lasdel, 2012).

As to men, they do not support their spouse during breastfeeding nor do they encourage them to participate in educational sessions. Husbands believe that their responsibility is limited to catering for their household members' needs and assisting their wives only when the latter have breastfeeding issues. This is because their work requires them to work for long periods outside the home, and they have a limited knowledge about breastfeeding supportive attitudes (Brown and Davies, 2014).

Advice received on EBF and sources of advice. In Aguegues 64% of surveyed mothers were counselled on EBF importance and 43% of the latter received this advice from PMASN facilitators. In addition, there is a significant relationship between the advice received, particularly at IEC sessions, and the EBF practice. This shows the effectiveness of the actions taken by PMASN in the community, especially the Communication for Social Change and Organized Behaviour sessions. By contrast in the commune of Zokpota, despite the high rate of advised women (89%) with health workers (94.38%) being the major counsellors, the EBF practice was not affected. We could infer from this result that health workers could have some misconceptions about EBF practice. Recent research evidence in Nigeria showed that Health workers' knowledge of breastfeeding was generally good though suboptimal (Joanah *et al.*, 2000). It then suggested that Health-related professions should provide current information on the best breastfeeding practices.

Table 1. Influence of activity time, socio-cultural and institutional factors on EBF practice in Aguegues

Aguegues		Proportion (%)		EBF (%)	Chi square p
		Yes	No		
Activity time	8h	57	29	28	0.057
	>8h	43	30	13	
Sociocultural factors	Low or no support	16	24.4	10.2	0.001
	Medium or High support	68	75.6	62.7	
Advice received on EBF (N=100)	Yes	64	78.0	54.2	0.015
	No	36	22.0	45.8	
EBF advice sources (N = 89)	Medical staff	39.1			
	Family, friends and grouping	12.5			
	PMASN* Facilitators	43.7			

*PMASN = Multisectoral Food, Health and Nutrition Project

Conclusion

Breastfeeding is a complex act, the most natural and beneficial that is difficult to replace in the current state of things. Results showed that the rate of practice in the study area is significantly increasing, mothers have a relatively acceptable level of knowledge and practical attitude of the EBF. Limitations of the study are among others, the flood season during which the data were collected (Aguegues). It is proposed to do a regression analysis of the factors influencing the EBF which would allow establishing the main determinants of the EBF. Also, the use of the deuterium program will make it possible to precisely determine the rate of EBF in the commune.

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