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Paradox of health promoters: optimal breastfeeding practices and obstacles among health workers at Treichville University Hospital, Abidjan, Ivory Coast

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Abstract

Optimal breastfeeding is crucial for infant health, but its prevalence remains low in Sub-Saharan Africa. Health workers play a central role in its promotion, but their own ability to follow the recommendations they provide, particularly in the face of professional constraints, is poorly documented in the Ivory Coast. The objective of this study was to assess the knowledge, personal breastfeeding practices, and professional barriers among healthcare workers at a university hospital. A cross-sectional study was conducted in August 2022 at the Treichville University Hospital in Abidjan (Ivory Coast). Sixty-one healthcare workers (physicians, midwives, nurses, and nursing assistants) from the pediatrics and obstetrics/gynecology departments completed a structured questionnaire. The data were analyzed using SPSS v20. The mean age was 34±5.7 years. Although 98.4% were aware of its benefits, only 39.3% understood the World Health Organization (WHO) definition of exclusive breastfeeding. Regarding practices, 96.7% had breastfed, but only 50% had initiated breastfeeding within the first hour after delivery, 36% had practiced exclusive breastfeeding for 6 months, and only 5% had breastfed until 24 months. The major obstacle was returning to work (85.2%), combined with the lack of a dedicated breastfeeding room. No significant association was found between continuing education and the practice of exclusive breastfeeding. A significant gap exists between healthcare workers' theoretical knowledge and breastfeeding practices, primarily hindered by systemic professional constraints. Institutional interventions targeting the work environment are needed to support healthcare workers in their dual role as mothers and breastfeeding promoters.

Key words: breastfeeding; professional practices; health workers; occupational barriers; Ivory Coast.

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Introduction

Optimal breastfeeding, defined by the World Health Organization (WHO) as initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months, and continued breastfeeding up to two years of age or beyond with complementary feeding, is one of the most effective and cost-efficient public health interventions.[1,2] It significantly reduces infant morbidity and mortality related to infectious diseases and confers long-term health benefits for both the child and the mother.[3]

Despite this robust evidence, the global prevalence of the Ability, Motivation, and Opportunity model remains below recommendations. In 2021, it was estimated that only 48% of newborns benefited from early breastfeeding, and 44% were exclusively breastfed until six months.[4] In the Ivory Coast, although progress has been observed, the rate of exclusive breastfeeding reached only 34% in 2021, remaining below the national objective and the WHO target of 50% by 2025.[5,6]

The professional role of healthcare, particularly maternity and pediatric services, is crucial in reversing this trend. As frontline advisors, they directly influence mothers' breastfeeding decisions and practices.[7]

The effectiveness of their recommendations is, however, often linked to their own conviction, itself influenced by their knowledge, attitudes, and, crucially, their personal experience of breastfeeding.[8,9] This gap suggests the existence of specific obstacles, potentially related to their professional environment.

In the Ivory Coast, the hospital environment, particularly university hospitals characterized by heavy workloads and significant organizational constraints, could present an unfavorable environment for reconciling optimal breastfeeding practices with profes-

sional demands. However, to our knowledge, no study has specifically investigated this potential paradox among Ivorian healthcare workers, who are nevertheless central to the implementation of breastfeeding promotion policies such as the Baby-friendly Hospital Initiative (BFHI). This study aims to fill this gap. Its overall objective is to assess the personal experience of breastfeeding among female healthcare workers in the pediatric and obstetrics/gynecology departments of the Treichville University Hospital in Abidjan (Ivory Coast). The specific objectives are: i) describe their sociodemographic and professional characteristics; ii) assess their knowledge of breastfeeding support and BFHI; iii) analyze their personal breastfeeding practices; and iv) identify the obstacles to these practices, paying particular attention to constraints related to the professional environment.

Materials and Methods

Framework and study design

A descriptive and analytical cross-sectional study was conducted from August 1 to 30 at the Treichville University Hospital Center in Abidjan, Ivory Coast. The study took place in two healthcare departments directly involved in promoting breastfeeding: the medical pediatrics department and the obstetrics and gynecology department.

Population, sampling, and selection criteria

The target population consisted of all female health workers (doctors, midwives, state-certified nurses, and nursing assistants) working in these two services. An exhaustive and accidental sampling method was used: all agents encountered and meeting the criteria during the study period were invited to participate. The study included all female healthcare workers who had at least one biological child, were employed in one of the two services during the study period, and provided informed written consent. Participants were excluded if they had a maternal or infant condition formally contraindicating breastfeeding, or if they were on annual leave, sick leave, or maternity leave for the entire duration of data collection.

Data collection and variables

Data were collected using a structured, pre-test questionnaire administered face-to-face by the principal investigator in a private space within the services. The questionnaire comprised four sections: sociodemographic characteristics of the professionals, knowledge, personal breastfeeding practices, and barriers and satisfaction.

Statistical analysis

The data were processed using Epi Info version 3.5.4 and SPSS version 20.0. Quantitative variables were described by their mean, standard deviation, and range. Qualitative variables were described by their frequencies and percentages. Associations between categorical variables were tested using the chi-square test or Fisher's exact test when the conditions for applying the chi-square test were not met. The threshold for statistical significance was set at $p<0.05$.

Ethical considerations

The study protocol was reviewed and approved by the Ethics and Research Committee of the Treichville University Hospital. Administrative authorization was also obtained from the heads of the relevant departments. A clear explanation of the study's objectives, confidentiality, and voluntary nature was provided to each participant throughout the data processing.

Results

Table 1 presents the sociodemographic and professional characteristics of the study participants. Most respondents were aged 30-39 years, were midwives, and had fewer than 5 years of professional experience. The majority had 2-3 children and mainly worked in the pediatrics department.

Table 2 presents the participants' knowledge and training regarding exclusive breastfeeding. Most participants (98.4%) were aware of its benefits. A correct understanding of its WHO definition was reported by 39.3% of participants. Awareness of the BFHI was 34.4%. Additionally, 42.6% of participants had received ongoing training on breastfeeding.

Table 3 presents the breastfeeding practices of the participants. Most participants (96.7%) had breastfed at least one child. Early initiation of breastfeeding was reported by 50.0% of respondents, while 36.1% practiced exclusive breastfeeding for six months.

Table 1. Sociodemographic and professional characteristics of participants (n=61).

Variable	Category	n (%)
Age (years)	20-29	18 (29.5)
	30-39	27 (44.3)
	40-49	16 (26.2)
Profession	Midwives	30 (49.2)
	Physicians	17 (27.9)
	Nurses	8 (13.1)
	Nursing assistants	6 (9.8)
Professional experience (years)	<5	37 (60.7)
	5-10	19 (31.1)
	>10	5 (8.2)
Parity	1 child	21 (34.4)
	2-3 children	32 (52.5)
	≥4 children	8 (13.1)
Department	Pediatrics	39 (63.9)
	Obstetrics and gynecology	22 (36.1)

Complementary feeding at six months was reported by 85.2% of participants, and 95.1% continued breastfeeding after the introduction of solid foods. Only 4.9% reported a total breastfeeding duration of at least 24 months.

Figure 1 presents the main barriers to exclusive breastfeeding. Return to work or professional constraints were reported by 85.2% of participants, followed by the absence of breastfeeding facilities in the workplace (59.0%) and lack of time or workload (42.6%). Work-related fatigue was reported by 36.1% of participants, while lack of family support (13.1%) and other factors (8.2%) were also reported.

Discussion

This study, conducted with healthcare workers at a university hospital in the Ivory Coast, reveals a significant gap between their role as breastfeeding promoters and their own personal practices. The main finding is that while their theoretical knowledge of the benefits of breastfeeding is excellent, its optimal implementation is predominantly hampered by systemic professional barriers.

The rate of exclusive breastfeeding at six months observed in our study (36.1%) is slightly higher than the national prevalence in the Ivory Coast (34%) but remains far from the WHO target of 50%. This result places Ivorian healthcare workers in a paradoxical situation similar to that documented in other countries. Our rate is comparable to that found by Sidibé *et al.* among healthcare workers in Guinea (36.9%), but lower than that reported by Iliyasu *et al.* in Nigeria (70%)[4] and higher than that of Musoke *et al.* in Kenya (29.2%).[6] These significant variations suggest that contextual factors, beyond individual knowledge, strongly influence individual practices. Sattari *et al.*'s study in Canada also showed an antenatal maternal education rate of only 40.9% among physician mothers, indicating that this challenge transcends borders and development levels.[9]

The originality of our results lies in highlighting the professional and systemic nature of the obstacles in the Ivorian context. Returning to work was identified as the main obstacle by 85.2% of participants, a finding that largely aligns with the conclusions of studies conducted in Guinea, Saudi Arabia, and Thailand, where professional constraints were predominantly cited. Thus confirming that the timing of returning to work negatively impacts the initiation and duration of breastfeeding. This obstacle was exacerbated by the lack of a dedicated breastfeeding room in the workplace

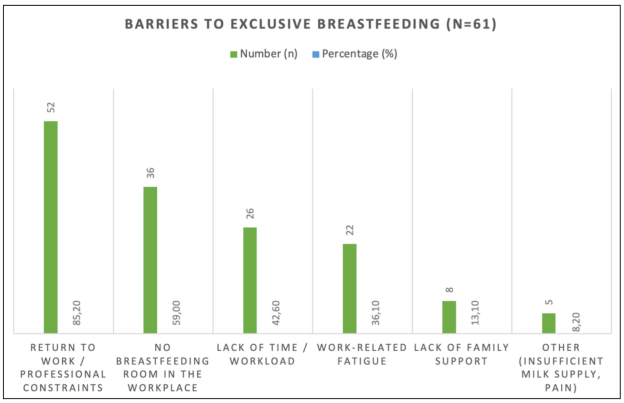

Figure 1. Main obstacles to the practice of exclusive breastfeeding (n=61).

Table 2. Knowledge and training on breastfeeding (n=61).

Variable	Category/answer	n (%)
Knowledge of the benefits of AME	Yes	60 (98.4)
	No	1 (1.6)
Knowledge of the WHO definition of AMO	Correct (all criteria)	24 (39.3)
	Partial or incorrect	37 (60.7)
Knowledge of the BFHI	Yes	21 (34.4)
	No	40 (65.6)
Received ongoing training on breastfeeding	Yes	26 (42.6)
	No	35 (57.4)
Time since the last training (years)	<1 (among those trained, n=26)	11 (42.3)
	1-3	13 (50)
	>3	2 (7.7)

AME, antenatal maternal education; AMO, Ability, Motivation, and Opportunity model; BFHI, Baby-friendly Hospital Initiative.

Table 3. Participants' personal breastfeeding practices compared to WHO recommendations (n=61).

Optimal breastfeeding indicator	WHO recommendation	Practice observed	n (%)
Breastfeeding		Has already breastfed at least one child	59 (96.7)
Early breastfeeding	<1 hour after birth	Yes	30 (50)
Exclusive breastfeeding	6 full months	Yes	22 (36.1)
Age of food diversification	At 6 months old	At 6 months	52 (85.2)
Continuing breastfeeding after introducing solid foods	Yes, with additional ingredients	Yes	58 (95.1)
Total duration of breastfeeding	Up to 24 months or more	≥24 months	3 (4.9)
Expression and storage of breast milk	Recommended in case of separation	Already practiced	-

(59%). The absence of a significant association between continuing education and breastfeeding practice in our study (p=0.42) supports the idea that purely educational interventions are insufficient in the face of strong organizational barriers, requiring environmental and political changes. Furthermore, the lack of awareness of the BFHI among 65.6% of participants is a significant finding. Yet, the BFHI is the flagship policy of the WHO/UNICEF for creating healthcare environments conducive to breastfeeding.[10] Its lack of adoption by healthcare staff, as observed in our study, constitutes a major obstacle to its effective implementation and limits the ability of caregivers to advocate for a suitable work environment. This result aligns with the conclusions of Perez-Escamilla *et al.* regarding the importance of institutional commitment for the success of such initiatives.[8]

This study also highlights the importance of professional support as a major factor promoting the practice of exclusive and prolonged breastfeeding.

Finally, in the area of reconciling breastfeeding and work for mothers, the fight against psychosocial occupational risks must be integrated into their programs, in addition to professional spatial-temporal logistics, as well as information and support for breastfeeding mothers.

Conclusions

This study highlights a situation observed in the Ivorian healthcare system: healthcare workers, despite being natural advocates for breastfeeding, themselves encounter significant difficulties in implementing optimal recommendations. The main obstacle is not a lack of knowledge, but rather systemic professional constraints, primarily workload and the absence of dedicated infrastructure. These findings argue for a transformation of the breastfeeding promotion approach, which must integrate concrete interventions at the institutional level to create truly supportive working environments. Supporting healthcare workers who are also mothers in their personal practice is therefore a crucial lever for strengthening their credibility and effectiveness in promoting optimal breastfeeding among Ivorian mothers.

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Conflict of interest: the authors have no conflict of interest to declare.

Ethics approval and consent to participate: the study protocol was reviewed and approved by the Ethics and Research Committee of the Treichville University Hospital (Abidjan, Ivory Coast). Administrative authorization was also obtained from the heads of the relevant departments. A clear explanation of the study's objectives, confidentiality, and voluntary nature was provided to each participant throughout the data processing. Written consent to participate was obtained from all study participants.

Availability of data and materials: the datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.