

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

R. N'guessan-Sika^{1*}, B. E. Lasme-Guillao¹, R. Azagoh-Kouadio², F. Tanoh-Kassi¹, M. Cardenat², S. Yao¹, A. Adjaffi¹, K.V. Asse³, F. Dick-Amon-Tanoh²

¹Pediatric Ward of University and Teaching Hospital of Yopougon, Abidjan, Côte d'Ivoire.

²Pediatric Ward of University and Teaching Hospital of Angré,, Abidjan, Côte d'Ivoire.

³Pediatric Ward of University and Teaching Hospital of Bouaké, Côte d'Ivoire.

kouameroseline8@gmail.com

***Corresponding Author:** Roseline N'guessan-Sika, Assistant professor, Pediatric Ward of University and Teaching Hospital of Yopougon, 21 BP 632 Abidjan 21, Abidjan, Côte d'Ivoire.

Abstract

Introduction: The implication of the mothers in the management seems to improve the prognosis of the newborns hospitalized but not yet studied in Côte d'Ivoire. The aim is to study the involvement of mothers in the management of hospitalized newborns to improve prognosis.

Methods: A descriptive cross-sectional study carried out in neonatology at the Yopougon Teaching Hospital from 09 July to 08 August 2018. It included mothers of consenting hospitalized newborns and health personnel present at the time of the survey. The variables studied focused on the socio-demographic aspects and the involvement of mothers in the care of the newborn.

Results: A total of 97 mothers and 40 health workers (10 doctors, 30 caregivers) out of a staff of 52 were investigated. The participation rate of the study staff was 77%. 70% of the staff had less than 5 years of professional experience. He knew the definition and importance of involving mothers in care. For them, the involvement of the mothers would help to better care for the newborn in 60% but the obstacle lay in the difficulty of learning mothers (65%) and overwork (65%). The mother interviewed was primiparous (44%), out of school (77%) and her newborn was 61% in term. She wanted to be involved in the care (99%), trained in the care administered (84%) and have information on the state of health of her child (84%).

Conclusion: To improve the involvement of mothers in the care of the newborn, the capacity of the service, staff and mothers must be strengthened.

Keywords: health staff, mother, involvement, newborn, Ivory Coast.

INTRODUCTION

Medical care refers to the act of caring for a person who has symptoms of an illness or accident. It involves several actors in pediatrics. In the neonatology services, these actors are the health staff, the newborn, the mother and the community. Studies [1-3] conducted in developed countries have highlighted the value of involving mothers in hospitalized newborn care. Indeed the care provided by the parents is basic care, certainly simple to achieve, but essential to the good development of the child. They aim to facilitate the

establishment of a bond of attachment between the parents and the child and to strengthen the exercise of parental control within the neonatology unit. Care for newborns highlights the mother's protective role and sense of responsibility. For caregivers, this care improves communication between the health care team and the family; which participates in therapeutic education. This care allows an improvement in the behavioral development of the premature newborn. They reduce the incidence of co-morbidities as well as the costs of hospitalization [3].

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

In Côte d'Ivoire, the conditions for involving mothers in care are not clearly defined for the provider and remain difficult to put into practice. This often leads to a poor integration of the mother into the care project that can lead to complications in the child with an increased risk of re-hospitalization. The Lasmé et al [4] study found that the mother of low birthweight infants was not sufficiently involved in the care of the newborn's hospitalization. This resulted in complications in the newborn in the days following hospital discharge in 63.5% of cases and motivated re-hospitalization in 13% of cases. Thereafter, establishing a therapeutic alliance with the mother of the newborn hospitalized with neonatology becomes essential for the overall success of the care project. The objective of the study was to take stock of the involvement of mothers in the management of hospitalized newborns for the improvement of prognosis and professional practice.

METHODS

Type, Period, Place and Population of Study

It was a descriptive cross-sectional study carried out in the neonatology department of the Yopougon University Hospital from 09 July to 08 August 2018. This service has a capacity of 29 beds and is subdivided into three main sectors: emergency with a room and 2 beds, intensive care with 9 beds, neonatal medicine with 9 rooms and 18 beds. The service occupancy rate varies between 120% and 150% and operates 24 hours a day. It is led by a team of 11 doctors and 50 caregivers (39 midwives, 9 nurses, 9 caregivers). The average admissions over the period from 2016 to 2018 were 1500 newborns. The nursing staff is divided into 4 teams that take turns according to the established program and enjoys 48 hours of rest after a permanence the first day and a guard the next day. Parents of newborns are present all day and return home at 18h. The study population consisted of health staff and mothers of hospitalized newborns.

Criteria for inclusion and non-inclusion

The inclusion criteria were for the health staff the presence at the position during the survey period and the study participation agreement. Concerning the mother or the substitute it was the presence near the hospitalized newborn and the oral or written agreement after reading the consent form. The non-inclusion criteria were for staff absence for leave or annual leave during the study period. Regarding

mothers or surrogates, this was the refusal to participate in the study and the death of the newborn during the first 24 hours.

Sampling and Sample of the Study

Sampling was Accidental

All health personnel and mothers or surrogates present at the study site during the survey period and meeting the inclusion criteria were selected. Our sample consisted of 137 subjects composed of 10 physicians, 30 caregivers (25 midwives, 5 nurses) and 97 mothers.

Data Collection Tools and Study Progress

Data collection was done using three data collection instruments, namely a maternal interview guide and two staff questionnaires (one for doctors and the other for caregivers). These three collection instruments were validated after a pre-test performed in the neonatology department of the University Hospital of Treichville.

The interview with the mothers took place in the neonatology service on the chairs for the parents. The interview was done after lifting the neonatal emergency when the newborn was stable with relaxed parents, the consenting parents were invited to answer the questionnaire. The questions were semi-directed and open. The interview lasted 10 minutes.

The interview with the doctors was done when they were not in an emergency situation. To control communication between health workers and between mothers, interviewees were required not to communicate responses to others. The cards did not stay with the respondents and were retrieved after the interview.

Variables Studied

The variables studied focused on the socio-professional characteristics of the nursing staff and mothers, the level of knowledge of the nursing staff on the involvement of mothers in the care of newborns, the difficulties encountered by the nursing staff in the association of mothers to care for newborns; mothers' views on their participation in care; and mothers' suggestions for improving their involvement in care.

Ethical Considerations

To carry out our study we received an authorization of investigation granted by the Direction of the Health Establishments of the Ministry of Health and Public

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

Hygiene. Then, we wrote a request to which we attached the ministerial authorization and addressed to the Direction of the University Hospital of Yopougon which issued us an authorization of investigation to carry out our investigations in the neonatology department. Informed consent of caregivers and mothers was obtained prior to the survey. An anonymous questionnaire was submitted to them.

Data Analysis

The data was entered and analyzed on epi-info software. The analysis was descriptive and consisted

of determining the numbers, calculating frequencies and proportions.

RESULTS

Socio-Demographic Characteristics of the Study Population

The mother was primiparous (44%), out of school (77%), residing in Yopougon and had a newborn baby in 61%. 70% of the staff had less than 5 years of professional experience and 55% had seniority in the service of less than 5 years (**Table 1**)

Table 1. Sociodemographic characteristics of the study population

Staff	Variables n/N	Percentage
Mother		
Living place		
• Abidjan Yopougon	63/97	65
• Abidjan off Yopougon	25/97	25,7
• Outside Abidjan	9/97	9,3
Level of study		
• Not educated	23/97	23,7
• Primary	28/97	28,8
• Secondary	29/97	30
• High school	17/97	17,5
Parity		
• Primiparous (1)	44/97	45,3
• Paucipare (2-3)	40./97	41,2
• Multipare (≥4)	16 /97	16,5
Term of newborn		
• term	59 / 97	60,8
• Premature	38 / 97	39,2
Duration of hospitalization (days)		
• 0-7	67/97	69
• ≥ 8	30 /97	31
HEALTH PERSONNEL		
Socioprofessional categories		
• Midwives	25/40	62,5%
• Doctors	10/40	25
• nurses	5/40	12,5
Seniority in the profession (years)		
• 0-5	28/40	70
• 6-10	9./40	22,5
• >10	3/40	7,5
Seniority in the service (years)		
• 0-5	22/40	55
• 6-10	13/40	32,5
• >10	5/40	12,5

Involvement of Health Staff and Mothers in Care

Involvement of Health Staff

Caregivers had an accurate understanding of the definition of mothers' involvement in care in 84%.

Seventy-four percent of caregivers cared for at least five newborns and 26 percent more than 11 newborns. All the staff interviewed said that they allow all mothers to visit their children, explain the hygiene measures and the hours of visits to mothers.

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

The surveyed staff said in 30% of the cases to associate the mothers with the care. All of the caregivers responded that mothers could do the bath, bed repair, diaper changing, massage, mother-kangaroo, and feeding. In 10% of the staff interviewed said that the mother could perform the umbilical bandage in hospital. All the caregivers surveyed said that mothers could not attend resuscitation, medical care and invasive care. As for the doctors, they explained the diagnosis of entry to the mothers in 100% of the cases, 90% explained the evolution of the newborns to the mothers but only 70% explained the treatment instituted to the mothers.

Table 2. Frequency of caregivers' responses to difficulties in involving mothers in care.

Difficulties encountered by caregivers when involving mothers in care	Variables	%
Difficulties of learning mothers	14	40
Refusal of mothers' participation	6	17
Bad practices of mothers	3	9
Work overload	10	28
No difficulty	2	6

For 80% of doctors, involving mothers in care would help better care for newborns and for 90%, this involvement of mothers created an emotional bond between the mother and the newborn. Other benefits include involving mothers in care to make them more self-reliant (10%), giving them confidence and giving up traditional practices (20%). It will help in taking charge by reducing the workload of the nursing staff (40%). It allows mothers to monitor the signs presented by their child, alert doctors to danger signs (20%), assess progress, and be quicker to perform paraclinical checkups (10%). The difficulties encountered during the involvement of mothers in the care

Table 3. Frequency of mothers' responses to the causes of their solicitations by the nursing staff

Causes of solicitations by caregivers	Frequency	%
Food	86	40
ordinances	82	39
Body care	30	14
Needs of the newborn	4	2
Examination	9	4
Assessment and radiography	2	1

Suggestions from Mothers

Mothers surveyed suggested being trained in the care

Involvement of Mothers

Mothers were informed as soon as they arrived of the state of health of their child as well as rules of hygiene respectively in 77% and 76% of the cases. They visited their child regularly in 74% of cases.

Opinion of Health Staff and Mothers

Opinion of the Health Staff

Fifty-seven percent of health care workers thought that involving mothers in care would help better manage their child. In 30% of the cases, the surveyed staff associated mothers with care. The difficulties encountered by health care staff when involving mothers in care are presented in **Table 2**.

are the mothers' learning difficulties (70%), their bad practices (70%) having the disadvantage of a modification of the treatment by the mothers such as a modification of the infusion rate, oxygen stop and work overload 30%.

Mothers Opinions

The mothers' responses to the causes of their solicitations by the nursing staff are listed in **Table 3**. The mother surveyed wanted to be involved in the care in 99% of the cases and said in 76% of the cases to have felt a well-being and the insurance while taking care of her child.

of their child and having information on the health status of their newborn in 84% of cases (**Table 4**).

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

Table 4. Frequency of mothers' responses to their suggestions.

Suggestions from mothers	Frequency	%
Training of mothers in different care	41	40
Follow-up of the mothers	12	12
Information on the health status of the newborn	43	43
Improving the reception of mothers	05	05

DISCUSSION

The objective of the study was to take stock of the involvement of mothers in the management of hospitalized newborns for the improvement of prognosis and professional practice. The study found that the involvement of mothers in the management of newborns by health staff is still insufficient in the neonatal unit of Yopougon University Hospital. While mothers wish and carers are supportive of such practice. Limiting factors are the low level of education of mothers and the heavy workload of health personnel. These results must be qualified because the study is monocentric and based on the questioning of health personnel and mothers. For illiterate mothers we used interpreters. A bias of translation or a transcription error of the words of the mothers can not be excluded. In addition, communication between respondents about the answers to be given can not be excluded. Despite the methodological limitations, this study is the first to be conducted in Côte d'Ivoire and gives rise to the following discussion points.

At the Level of Socio-Professional Aspects of Health Personnel and Mothers

The study reports that 70% of health personnel surveyed have less than 5 years of professional experience. Inadequate years of professional experience affect self-confidence and clinical dexterity. It could encourage the health worker's reluctance to involve the mother in care lest the mother discover deficiencies. The work also reveals that about three quarters of the staff questioned are overworked and take care of at least 5 newborns in intensive care per day. In Europe the caregiver ratio is one nurse for two newborns in intensive care units, one for three in the intensive care unit and one for six in neonatal medicine [5]. Failure to meet this standard could have an impact on mothers' involvement in care in terms of training time to be performed with the mothers. To a certain extent, the involvement of mothers could be a way of lightening the work of the staff and delegating tasks to the mothers. It would be important for a staff deficit

compensation goal to involve mothers in an orderly and reasonable manner in their child's care.

Mothers overall have a good level of education in the study. This intellectual level of mothers could facilitate communication between staff and these, thus facilitating their integration into the service and care. The fear, therefore, of the nursing staff to have communication difficulties could therefore be lifted with the national policy of free Ivorian school and the schooling of the girl. The majority of mothers are therefore at their first experience (44% of primiparous) and therefore not experienced enough to take care of their child. Staff could involve mothers as soon as they arrive so that the return home is easier and avoid early re-hospitalization as Lasme et al. [4] in the same department in 2012.

Regarding the Involvement of Mothers in Caring for Caregivers

The study found that staff are aware of the definition of mothers' involvement in care in 84% of cases and are taking action to involve mothers in care such as allowing mothers to visit their mothers. child, explain the rules of hygiene and the hours of care. Communication is established upon arrival in the service. The Roberge et Partenaude study in 2009 [6] emphasizes the need to offer parents the opportunity to integrate into care while respecting their pace and without imposing on them. According to a 2013 study [7], the majority of parents reported that the caring and caring behavior of caregivers was paramount to the interactions they develop with their child. Some studies [7, 8] emphasize the importance of communication between parents and the health care team. On the other hand, if communication was established, only 30% of health care staff associated mothers with care. Indeed some care administered by the nurse to the newborn can be difficult to achieve under the gaze of parents with sometimes a fear of being judged. But also some anxious parents ask a lot of questions to the carers and this can be destabilizing for the nurse during care requiring a certain concentration [9]. According

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

to the majority of caregivers, mothers could perform body care, practice the "kangaroo mother method", feed their newborns with cups and breastfeeding that will be taken home. It is probably for the purpose that mothers are confident when they return home, as Brown says in a study [3]. They will be able to attend this care when they are performed by the nursing staff during the hospitalization of the newborn. The staff unanimously felt that mothers could not attend invasive, medical and resuscitation care; this could be explained by mothers' feelings of fear about their loved one's suffering that the care is painful and even traumatic [10]. Our results showed that 57% of the health care staff felt that the involvement of mothers in care would help with better care. According to Lawhon, when nurses and parents work in the same direction for the best interest of the child, all aspects of care are positively influenced [11]. In sum, caregivers have knowledge about the involvement of mothers in care; he leads in the course of the service of actions in favor of this practice but with a certain limit to the extent that the mothers can not attend some care which can be traumatic for them.

Regarding the Opinion and Suggestions of Mothers about Their Involvement in the Care of Their Newborns.

The study found that more than three-quarters of mothers reported visiting their newborns regularly and receiving information on their health status. A study by Mok et al in 2006 [12] showed that for mothers the most important thing was to understand the care given to their child and to be informed of any changes in the health status of their child. Being in possession of this information allowed them to feel invested in caring for their child. They then resume their role of mother. This allows the development of maternal feeling and confidence in their maternal competence [12]. In the study they were asked mainly for the feeding of their newborn and to honor the prescriptions. Mothers thought they were being solicited only for pecuniary reasons and not to see, touch or participate in the care of their child. They had felt a sense of well-being and self-assurance in caring for their child. According to a study conducted by Schenk and Kelley in 2010, when a mother touched her child, a positive connection was created, the role of the mother, she needed to be recognized as well [13]. All mothers wanted to be involved in the care of their newborn hospitalized. This is explained by the

fact that mothers would like to reconnect with their child and play the role of mother that they had lost since the beginning of their child's hospitalization. They suggested being followed and trained to care and have information about their child's health status. Nurses accompanying parents have a role in caring for mothers [14]. For neonatal care units, although technology is ubiquitous, parents do not prioritize the nurse's clinical knowledge and skills, but rather her ability to integrate them into the neonatal environment and to facilitate their involvement in the care of their child [15]. In the study of Harvey et al. in 2013, parents wanted detailed, specific and individualized information on the state of health of their child [16].

Concerning the Difficulties Encountered By Staff in the Involvement of Mothers in Care.

The study shows that the difficulties evoked by the health care staff impair the quality of communication between mothers and staff and subsequently the process of integrating mothers into care. This is the low intellectual level of mothers, learning difficulties and secondly the overwork of the service are the main obstacles to the involvement of mothers. Moreover, in a study conducted by Mc Allister and Dionne in 2006 nurses believe that integrating parents into care takes a lot of time in a context of intense workload [17].

CONCLUSION

The involvement of mothers in the management of newborns by health staff is still insufficient in the neonatal unit of Yopougon University Hospital. While the mothers wish it and the nursing staff favorable to such practice. Limiting factors are the low level of education of mothers and the heavy workload of health personnel. To promote the involvement of mothers in care by health staff, we recommend mothers' literacy and capacity building for the human resources department.

REFERENCES

- [1] Charte de Leiden (1988) : the charter of the hospitalized child. Available from <https://www.hug-ge.ch> 2019.01.23.
- [2] Isabelle Glorieux et al. What are the benefits of early parental involvement and neonatology? The point of view of the parents. Review *Becoming*. 2012; 2:45

State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)

- [3] Browne JV: New perspectives on premature infants and their parents. zero to three. ERIC. 2003; 24 (2): 4-12.
- [4] Lasme-Guillao B.E, Dick-Amon-Tanoh F, Daingui M E et al. Assessment score of early exits of low birth weight infants: the Abidjan experience. Journal of Pediatrics and Childcare 2012; 25 (3): 142-47.
- [5] Decree of 25 April 2000 on pre-work and work premises, medical devices and neonatal and neonatal resuscitation examinations provided for in subsection IV "Technical operating conditions for obstetrics, Neonatology and neonatal resuscitation" of the Public Health Code (Book VII Title I, Chapter II, Section III, Part III: Decrees). Official Journal 16 June 2000.
- [6] Roberge V, Patenaude H: Parents Place in the Neonatology Unit. Nursing Perspective November / December 2009; 3: 27-29.
- [7] Guillaume S, Michelin N, Amrani E et al. Parent's expectation of staff in the early bonding process with their premature baby in the intense care setting. A qualitative multicenter study with 60 parents. BMC Pediatrics. 2013; 1:18 p.m..
Merighi C: Promoting affective attachment at the neonatal intensive care unit. A challenge for nurses. 2009; 43(8), 846-851.
- [8] Kennell JH, Klaus MH. Bonding recent observations that alter perinatal care .Pediatr Rev. 1984; 19(1): 4-12.
- [9] Axelin A: The effect of kangaroo care on plain in premature infants during invasive procedures, the turkish journal of pediatrics. 2009; 51: 14-18.
- [10] Lawhon G :Integrated nursing care : Vital issues important in the human care of the newborn, Semin Neonatol. 2002;7(6):441-6.
- [11] Mok E, Leung LS: Nurses as providers of support for mothers of premature infants. Journal of clinical nursing. 2006 ; 15 ,726-734.
- [12] Schenk LK, Kelley JH: Mothering an Extremely low Birth-Infant a Phenomenological Study .Adv Neonatal Care2010; 10(2): 88-97.
- [13] Lee SN, Long A, Boore J. Taiwanese women's experiences of becoming a mother to a very-low-birth-weight preterm infant: A grounded theory study. Int J Nurs Stud. 2009; 46(3):326-336.
- [14] Cescutti-Butler L, Galvin K. Parents perceptions of staff competence in a neonatal intensive care unit.J Clin Nurs. 2003;12(5):752-761.
- [15] Harvey ME, Nongena P, Gonzalez-Cinca N, et coll. Parents experience of information and communication in the Neonatal unit about brain imaging and neurological prognosis: a qualitative study Foundation. Acta Paediatrica. 2013; 102(4):360-365.
- [16] Allister Mc, Dionne k. Establi shing effective long-term relation ships with parents in the NICU Neonatal Netw. 2006; 25(5):329-337.
- [17] Pierrat V, Catherine - Grattepanche Z, Rousseau S et al: What are the benefits of early involvement of parents in neonatology? : The point of view of the baby. Review Becoming 2012; 1 (24): 35-44. available on .<https://www.cairn.info/revue-devenir-2012-1-page-35.htm>.2019.05.08.

Citation: R. N'guessan-Sika, B. E. Lasme-Guillao, R. Azagoh-Kouadio, F. Tanoh-Kassi, M. Cardenat, S. Yao, A. Adjaffi, K.V. Asse, F. Dick-Amon-Tanoh. *State of Play of the Mothers's Involvement in the Care of the Newborn in Abidjan (Côte D'ivoire)*. *Archives of Pediatrics and Neonatology*. 2019; 2(2): 01-07.

Copyright: © 2019 R. N'guessan-Sika, B. E. Lasme-Guillao, R. Azagoh-Kouadio, F. Tanoh-Kassi, M. Cardenat, S. Yao, A. Adjaffi, K.V. Asse, F. Dick-Amon-Tanoh. *This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.*