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Practice of Essential Care for Newborns in the Referral Health Center of Commune 5 of Bamako District

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Abstract

Introduction: Delay in recognizing newborn health problems and delay in accessing quality care contribute to a high number of newborn deaths. The objective of this work was to study the practice of essential newborn care. **Patients and method:** This was a descriptive study on critical care newborns at the referral health Center of the Commune 5 (CSRéf C5) Bamako from 1st April to 31 May 2018. The acquisition, processing and data analysis were done on SPSS software. **Results:** The average age of the patients was 24.8 years. They were out of school and knew about the importance of prenatal consultations (83.3%). The majority of health workers were Nurses and Obstetricians (59.3%). The effective care (100%) given to the newborns was anthropometric measurements of the newborn and identification of the newborn. Treatments such as stimulated drying, skin-to-skin contact, warming, and administration of vitamin K1 were each administered at over 90%. The fight against heat loss by the head (14.1%) and early latching (41.5%) were insufficiently administered. Cord care was not provided at the Hospital prior to discharge for contextual reasons. The administration of ocular antiseptics was not administered in the hospital. **Conclusion:** The administration of essential newborn care at the referral health Center of the Commune 5 in Bamako has shortcomings.

Keywords

Care, Essentials, Newborns, Bamako

1. Introduction

Essential Newborn Care (SENN) is defined by all the gestures and acts performed during pregnancy, at the time of childbirth and during the neonatal period and intended to improve the survival of the newborn [1].

As the health of the newborn is influenced by that of the mother, care should cover the entire period from conception of pregnancy to the postnatal period. Delay in recognizing newborn health problems and delay in accessing quality care contribute to a high number of newborn deaths [1]. It is a comprehensive strategy aimed at improving the health and survival of newborns through an intervention panel [1]. It is in Africa that 25% of neonatal deaths occur while this continent has only 11% of the world population [2]. The new study shows that more than half of these deaths occur in five large countries, in part because they are densely populated: India, Nigeria, Pakistan, China and the Democratic Republic of Congo [3]. Every year in Africa: 30 million women become pregnant; about 250,000 women die from pregnancy-related causes; about 1 million newborns die in their first month of life and about half a million die on their first day; 3.3 million more African children will die before their fifth birthday [4]. Newborn whose effectiveness has been proven by the implementation of inexpensive interventions, achievable with relatively low additional investments must be available and accessible to all newborns at all levels of the health pyramid [6]. In Mali, neonatal mortality was estimated at 46‰ and represents 24% [5].

The objective was to study the practice of essential care for newborns in the health referral Center of the Commune 5 of the District of Bamako in 2018.

2. Patients and Methods

This is a transversal descriptive study from April 2018 to May 2018. It took place in the referral health Center of the Commune 5 of Bamako District Hospital, which is a 2nd level in the health pyramid of Mali. We included in our study all live newborns resulting from vaginal deliveries resuscitated or not, mothers of newborns who agreed to participate in the study and health workers who provided care to mothers and to newborns. The non-inclusion criteria were vaginal deliveries out of service, and stillbirths and mothers who refused to participate in the study. We analyzed maternal variables (socio-demographic characteristics, parity, their knowledge of the prenatal consultation), those for the newborn (gestational age, sex, Apgar score), and those of health workers (qualification, duration professional experience). The evaluation was made on the administration of the 12 components of the immediate care of the newborn just at birth 1) Dry and stimulate the newborn immediately, 2) Evaluate breathing and breathing? inspiration, 3) Resuscitate the newborn-baby, 4) Caring for the umbilical cord, 5) Identify the newborn, 7) Administer eye drops or ointment in the eyes, 8) Weigh and take measurements, 9) Administer vitamin K1, 10) Put at the breast early, 11) cover the head with a cap, 12) put skin to skin in contact with the mother. The techniques used were individual interview, documentary use

and observation. The processing and analysis of the data were done on SPSS software version 25. 2016.

3. Ethical Aspects

The administrative and health authorities were informed of the conduct of the survey by means of a request for authorization to collect data, which was signed by the Director General of the research, studies and documentation for child survival (CREDOS). The approval of the head doctor of the referral health Center of the Commune 5 has been obtained. The confidentiality and anonymity of the information collected have been respected. They were reassured that they are not running any risk by refusing to participate.

4. Results

Information from the data has been presented in tabular form. Qualitative variables were presented as proportions (%) and quantitative variables as averages.

During our study, we collected 241 mothers and their live newborns from vaginal deliveries in the reference health center of commune 5 of the district of Bamako.

A total of 47 health workers involved in newborn care participated in the study (Tables 1-6 and Graph 1).

Table 1. Distribution of mothers of newborns as per socio-demographic data.

Sociodemographic data	Workforce	Percentage	Statistical
Age (year)			Max = 14 years Min = 45 years Average = 24.8 years
14 - 25	143	59.3	
26 - 45	98	40.7	
Marital status			
Married	223	92.5	
Single	18	07.5	
Schooling			
Yes	78	32.3	
No	163	67.7	

Table 2. Distribution of mothers surveyed as per parity.

Parity	Workforce	Percentage
Primiparous	71	29.4
Pauciparous	114	47.4
Multiparous	35	14.5
Large Multiparous	21	08.7
Total	241	100.0

Table 3. Distribution of mothers as per their knowledge of prenatal consultation (ANC) and newborn care.

Awareness	Workforce	Percentage
Importance of ANC and SENN		
Yes	200	83.0
No	41	07.0
Total	**241**	**100.0**

Table 4. Information on newborns according to gestational age and sex.

Newborn Information	Workforce	Percentage
Gestational age (week)		
37 weeks - 42 weeks	226	93.7
28 weeks - 36 weeks + 6 days	15	06.3
Sex		
Feminine	125	51.8
Male	116	48.2
APGAR		
<8	16	6.6
≥8	225	93.7

Table 5. Distribution of health workers according to their characteristics.

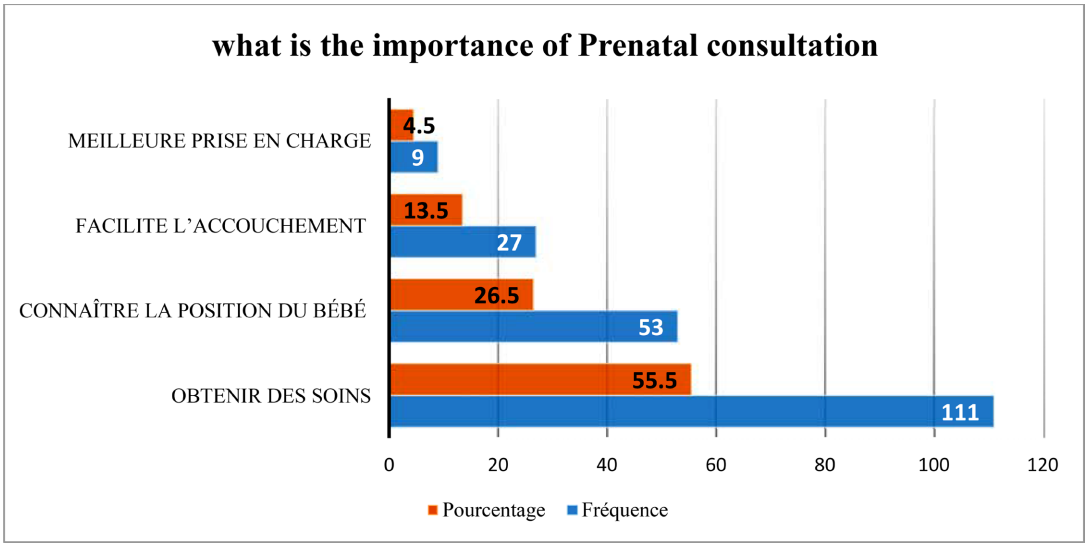
Staff who administered the SENNs	NOT	%
Qualification		
Midwife	4	1.7
Internal	94	39.0
Nurse	143	59.3
Experience (year)		
<5	93	38.6
5 - 10	132	54.8
> 10	16	6.6

Table 6. Practice of essential newborn care.

Practicing essential care	Yes		No	
	not	%	NOT	%
Immediately dry and stimulate the newborn	230	95.4	11	4.6
Resuscitate the newborn	16	6.6	225	93.4
Warm up the newborn	236	97.9	5	2.1

Continued

Cover the newborn's head with the cap	34	14.1	207	85.9
Ensure skin-to-skin contact with newborn mothers	222	92.1	19	7.9
Weigh and take measurements	241	100	0	0.0
Administer cord care	00	00	241	100
Bring the newborn to the breast early	100	41.5	141	58.5
Apply the eye drops or ointment in the eyes of the newborn	00	00	241	100.0
Identify the newborn	241	100.0	0	0.0
Administer vitamin K1 to the newborn	233	96.7	8	3.3



Graph 1. Response of mothers with knowledge of the importance of prenatal consultation (ANC).

5. Comments and Discussion

During our study, the 14 - 25 age group was the most represented 59.3% with an average age of 25 years. Gaurav S *et al.* in India [7] reported 89.8% of mothers in the 20 - 34 age group. In our study, married women represented 92.5% of mothers, and only 32.3% of these mothers were in school in our study. This state of affairs is characteristic of our predominantly illiterate society. Pauciparas represented 47.4% of our sample, against 43.2% reported by Gaurav S *et al.* [7].

The World Health Organization (WHO) recommends four antenatal consultations and eight regular contacts throughout pregnancy [8]. Satisfying such a recommendation depends in part on knowledge of the importance of these prenatal consultations first by the providers (health workers) then by the beneficiaries, namely mothers and/or families. Thus, in our study, 83% of mothers said they had knowledge of the importance of ANC; among them; 55.5% rated this importance in getting adequate care. The majority of newborns, 93.7%, were at term. More than half of these newborns, *i.e.* 51.8%, were female and 93.7% had an Apgar score at birth greater than or equal to 8. In our study, the immediate

dry stimulus was performed in 95.4% of newborns. Njom NlendAE *et al.* [9] had noted that immediate drying after birth was the rule in most cases, ie 80% of their series. Our rate could be explained by the inhomogeneity of health workers involved in this care, also to the high number of less than five years of experience among these agents. The proportion of newborns with morbidity requiring resuscitation represented 6.6% of the newborn. This resuscitation care was overall carried out well. Warming of the newborn was observed in 99.7% of cases. The fight against heat loss through the head of the newborn by wearing a cap was observed in only 14.1% of cases. On the other hand, skin-to-skin contact with the newborn mother was carried out in 92.1% of cases. It is an effective method to also prevent thermal loss of the newborn, regardless of the term of birth. If skin-to-skin contact is not possible, the newborn can be wrapped after drying it and placed in its mother's arms [10]. In our study, it performed in 92.1% of newborns. We recorded 100% of cases of weighing and measurements of newborns in our study. Cord care was administered with satisfaction in 99.6% of cases. Early breastfeeding of the newborn was observed in only 41.5% of cases and 40% in the study by Njom Nlend AE *et al.* [9] in Yaoundé. This low rate of breastfeeding in our study could be explained by the ignorance of mothers but also to the low level of communication between mother health workers on the importance of early breastfeeding of the newborn. Colostrum or yellowish viscous first milk must be the first and only taste of the newborn, it is very rich in vitamin A, antibodies (AC) and other elements or protective factors. It is often called the first vaccine. Breastfeeding reduces postpartum hemorrhage in the mother. In a WHO report, it is established that breast milk, being sterile, it would prevent diarrhea and other diseases in newborns and infants [8]. In our study, newborns did not benefit from the benefits of this early latching. Immediate umbilical care, which is a safe and effective means of controlling neonatal infection, was not applied throughout the study period. Indeed the study was made at a time when a memo from the Minister of Health had just temporarily suspended the administration of Chlorhexidine which had previously been used for umbilical care in newborns. But the lack of communication between health workers and a predominantly uneducated population has been the cause of serious accidents. In fact, some women delivered or accompanying adults administered Chlorhexidine in the eyes of newborns, with the consequences of cases of temporary or even permanent blindness. During this period, 90˚ alcohol was prescribed on the discharge prescription which is generally paid for upon arrival at home. Families were asked not to apply anything to the umbilicus other than 90˚ alcohol. The discharge prescription containing Gentalline eye drops or 1% tetracycline ophthalmic, which was to be administered once, purchased. No newborn baby had therefore received eye care before discharge from hospital during the study. In a study carried out in Yaoundé, this practice was carried out in almost all cases [9]. This eye care helps prevent purulent staphylococcal conjunctivitis in newborns. All newborns should benefit from it at birth. The ad-

ministration of vitamin K1 was observed in 96.7% of newborns, comparable to the rate reported in a Cameroonian study [9]. Vitamin K1 was administered primarily by injection by health workers. This vitamin K1 was available in the birth room. Vitamin K1 protects against neonatal hemorrhage, and should therefore be given to all newborns at birth. All newborns were identified immediately after birth.

6. Conclusion

The practice of essential newborn care at the referral health Center of Commune 5 in Bamako has shortcomings, some of which are contextual and temporary.

Recommendation

- Greater involvement of midwives in the care of newborns.
- The strengthening of the capacity of health personnel through continuous training on essential newborn care according to policies, standards and procedures (PNP) in Mali.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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