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ORIGINAL ARTICLE

Money matters mater – but it is not all about Money: Addressing challenges private sector hospitals face in providing newborn care.

Author: AKUSE Rosamund Modupe

Corresponding Author: AKUSE Rosamund Modupe,

Affiliation: Department of Paediatrics,

Ahmadu Bello University Teaching Hospital, Zaria, Nigeria.

Telephone: +2347034977771

Email: rosakuse@gmail.com

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The strength and significance of the paper are outlined below

a. What is known about the Neonatal Mortality rate (NMR)

Despite much research and several interventions that have contributed to a fall in Nigeria's NMR, the NMR has started to rise again. Nigeria is unlikely to reach the Sustainable Development Goal (SDG) 3.2 target which aims to reduce NMR worldwide to 12/1000 by 2030. Thus efforts to reduce the NMR need to be intensified. One strategy to be considered is the involvement of private-sector medical facilities but before the widespread adoption of this strategy, it is important to identify the challenges private practitioners face in caring for newborns and document the solutions they suggest.

b. What this study adds

This study gives an insight into real-life issues possible and solutions from the perspective of private medical practitioners. They identified challenges private hospitals face in providing care for sick and small newborns and possible solutions. These issues merit further research.

c. Possible impact

It will increase the awareness of governments, and other non-governmental organizations (NGOs) in resource-constrained countries about the benefits of involving private medical practitioners in the care of sick and small newborns. This includes increased access of newborns to skilled care, reduction in the burden on public

hospitals, providing data about newborns, and identification of low-cost technologies that could help in reducing NMR. It discusses the roles governments, NISONM, and other NGOs can play.

Abstract Background: Nigeria is unlikely to reach the Sustainable Development Goal (SDG) 3.2 target of 12/1000 live births by 2030 as the Neonatal Mortality rate (NMR) which fell from 70/1000 live births in 1967 to 34/1000 in 2022 rose to 41/1000 in 2023-2024. Increasing the involvement of private-sector medical facilities in newborn care could improve access of newborns to skilled care, reduce the burden on government hospitals, and provide data. This study investigated the challenges private hospitals face in providing newborn care and discussed possible solutions.

Methods

Convenience sampling of staff of registered private hospitals in two cities (Kaduna, Zaria), using a questionnaire. Common neonatal conditions seen were sepsis, jaundice, asphyxia, and prematurity. Financial issues were a major challenge and consisted of the cost of providing care (consumables, equipment, electricity, payment of visiting medical staff), parent/caregiver's difficulty in paying, and delayed payments by Health Insurance Schemes. Non-financial challenges included managing the poor condition of newborns at presentation, problems with referrals and parents/caregivers, and insufficient knowledge of staff about newborn care. Suggested Solutions include on-time payments by health Insurers, training (Clinical and business) and increasing the number of insured persons**.**

Conclusion: It is recommended that governments encourage private medical practitioners to provide or improve newborn care by ensuring timely settlement of bills, increasing insurance coverage and training, building referral networks, and assisting in obtaining loans. The Nigeria Society of Neonatal Medicine should advocate for private practitioners, assist in training, supervise policy implementation, encourage investment in public-private neonatal units, and expand its membership.

Keywords: SDG3.2, Neonatal Mortality Rate, Private Medical Healthcare, Nigeria, NISONM.

Introduction

A heartbreaking but fairly common sight in Nigeria is that of an ill or small newborn baby being rushed to a hospital by desperate parents. A quick history usually reveals that they had been turned away from public government health facilities due to a lack of bed space. The result - another neonatal mortality!!!.

This scenario is not limited to Nigeria. Sick or small newborns in other resource-constrained countries also have difficulty accessing medical care[1,2,3] but Nigeria has the highest neonatal mortality rate (NMR) in Africa and the second-highest NMR

globally[4,5]. The NMR is an important key indicator of the quality of a country's health[6] and though it fell from 70/1000 live births in 1967 to 34/1000 in 2022, it rose to 41/1000 in 2023-2024. This is far higher than the world average of 17/1000 live births[7],[8 9,10, 11] or the NMR of High-resource countries which ranges from 1.4 to 3.6[12,13,14]. Yet Nigeria is unlikely to reach the Sustainable Development Goal (SDG) 3.2 NMR target of 12/1000 live births by 2030 despite national and international efforts. Strategies to reduce the NMR include improved care of women during the antenatal period and delivery, early referral of newborns, women's empowerment, poverty reduction, comprehensive newborn care, and improvement of health care services[15, 16,17, 18,19,20]. In high-resource settings, the use of mechanical ventilation, and surfactant replacement therapy resulted in a significant reduction in NMR[14] but low-resource countries may not be able to afford such technologies on a large scale. However increasing access of sick and small newborns to hospital care, skilled nurses, and doctors can reduce the NMR to less than 15/1000[14].

The health system in Nigeria (like in many other sub-Saharan countries), consists of the public (government) and the private sectors[1,21]. The private sector provides care for the majority (60-70%) of the population though government-owned facilities make up 70% of health facilities in the country[22]. The private sector is made up of formal healthcare providers (doctors, nurses, pharmacists, laboratory scientists, community health workers) and informal providers (traditional birth attendants, patent medicine vendors)[21,23]. Private medical facilities provide medical services for a fee paid by the patient or by health insurance schemes. As most newborns who die, do so within the first week of life (often within the first 48 hours)[24], the involvement of private practitioners could potentially increase the access of newborns to skilled care especially as the large-scale migration of health professionals to higher-income countries has led to a shortage of qualified medical professionals. However, recognizing the challenges private medical practitioners face in providing newborn care could identify the unmet needs of newborns and lead to improvement of their services and practices[1,25,26].

The Nigeria Society of Neonatal Medicine, (NISONM) held its Annual General and Scientific Meeting (AGSM) in |Kaduna City, Kaduna State, Northern Nigeria in November 2019. The NMR of Kaduna State was 63 per 1000 live births (higher than the national average of 41 per 1000[7,27)]. Two major cities in the state (Kaduna and Zaria) had government hospitals with well-functioning neonatal units, but these constituted less than 10% of medical facilities that could provide CLINICAL care for sick and small newborns[27]. The two cities had 42.9% of registered private medical hospitals in the state, but little information was available about the problems private practitioners who attended to sick neonates encountered. The AGSM of NISONM was an opportunity to sensitize members of the association about the possible benefits of involving private medical practitioners in the care of sick and small newborns. A quick survey of some private health facilities was done to determine the challenges they faced in providing newborn care and document possible

solutions to these challenges. It is hoped the findings will highlight realistic strategies that would assist in reducing the high NMR in Nigeria and other resource-constrained countries.

Materials and methods Study Area

With an estimated population of 231,117,620 and a high birth rate, Nigeria is the most populous nation in Africa and the sixth most populous, globally [28,29]. The country consists of 36 states and a Federal capital territory, divided into 6 health zones[30] Kaduna State, (population 7.7 million)[30] is situated in the Northwest health zone which has one of the highest NMRs in the country[10]. At the time of the study, the NMR of Kaduna State was 63 per 1000 live births which was higher than the national average of 41 per 1000[7, 27] but information about the contribution of NMR from private medical facilities was unavailable. Kaduna City, (population 1,260,000), the capital of Kaduna state is situated 228 kilometres from the Federal capital Abuja. Zaria City another major city in the state has a population of 922,000 and lies 74 kilometres from Kaduna city. It is home to Ahmadu Bello University, one of the biggest universities in Sub-Saharan Africa[31]. Kaduna and Zaria had big public government hospitals with well-functioning neonatal units, but these constituted less than 10% of medical facilities that could provide CLINICAL care for sick and small newborns[27]. The 63 registered private medical hospitals in the two cities represented an estimated 42.9% of the 147 registered private medical hospitals in the state[27]. There was also an unknown number of unregistered private facilities, but it was difficult to obtain accurate information about them.

Methodology

A quick survey was done using a questionnaire distributed to the staff (medical directors, doctors, and nurses) of 13 non-government (private hospitals). A convenience sampling method was used. Hospitals registered with the Kaduna state government and known to treat paediatric patients were selected. Consent was sought from the medical directors of each hospital and each participant. A questionnaire was given to the medical director and a nurse or a doctor working in the facility who agreed to participate in the study. A self-administered questionnaire was used to avoid interviewer bias. The questionnaire was a newly designed one that could be completed in 10 minutes. It was made short to encourage respondents to fill it out as the staff of most private hospitals feel that it distracts them from their primary duties. The questionnaire consisted of a mixture of open and closed-ended questions that focused on the care neonates received in the facility. Questions were asked about the following - the commonest conditions seen in neonates; equipment available for newborn care; challenges faced in their management; suggested solutions to challenges and how neonatal care could be financed in private hospitals. The responses of each hospital were collated into one response and results were reported as proportions.

Results

Characteristics of the Hospitals

Questionnaires were distributed to 40 medical staff of 20 hospitals. Responses were received from the staff of 13 hospitals – 10(76.9%) from Kaduna city, and 3(23.1%) from Zaria. Most 11(84.6%) were for-profit medical facilities while 2(23.1%) were faith-based, (not-for-profit facilities). The directors of the hospitals were medically trained doctors and included three paediatricians, and one gynaecologist. The rest had no specialist training. Eleven (84.6%) hospitals had dedicated beds for neonates (range 1 to 12, median of 4 beds), one (7.7%) did not have dedicated neonatal beds, and one (7.7%) facility did not manage neonates.

Challenges - Both financial and non-financial challenges were reported.

Financial challenges

This was the major challenge reported by all the facilities. It consisted of difficulties in providing newborn care due to cost, parent/caregiver's inability to pay, and delayed payments by Health Insurance Schemes.

The cost of providing newborn care consisted of the cost of medical consumables (e.g., oxygen, drugs, intravenous fluids, drip sets, blood, etc) for immediate and continued care; equipment, ensuring a constant electricity supply for the running of equipment and payments to visiting medical staff consulted for the care of the neonate. Caregivers of newborns either paid out-of-pocket or their expenses were covered by the National Health Insurance Scheme (NHIS) if their parents were registered with the scheme. However, payments by the NHIS (now referred to as the National Health Insurance Agency (NHIA) could be delayed.

Financial constraints led some parents or caregivers to insist on early discharge of their babies. As a result, some hospitals preferred to refer patients to government facilities if treatment was likely to be prolonged or complicated.

Equipment

Nine (69.2%) hospitals had phototherapy machines, and 7(53.8%) incubators but only one (7.7%) provided Continuous positive airway pressure (CPAP). The cost of buying and maintaining medical equipment (incubators, phototherapy machines, and CPAP machines) was reported to be staggering.

Petrol or diesel was needed for generators to ensure constant electricity for the utilization of incubators, and phototherapy units during power outages. Power fluctuations and current surges which destroyed equipment were a problem and it was difficult to find biomedical technicians or engineers who could maintain or repair equipment.

Non-financial challenges

These included managing the poor clinical state of newborns at presentation, staff issues (including insufficient knowledge about newborn care), problems with referrals, and parents.

These were grouped as non-financial challenges because the private practitioners

did not think these had direct financial implications

Clinical State of newborns at presentation

The commonest neonatal conditions seen were Sepsis -11(84.6%), Jaundice 11(84.6%), Birth Asphyxia (Hypoxic Ischaemic Encephalopathy) 10 (76.9%), and Prematurity 8(61.5%) with or without respiratory distress syndrome (RDS). Patients were usually brought in late, and in poor clinical state which necessitated urgent care or resuscitation of the patient for which the hospital might not receive reimbursement. The clinical condition was worsened by the means of transportation as the newborns were often brought in without oxygen and never in a transport incubator.

Issues with Staff

Eleven (84.6%) hospitals employed the services of visiting paediatricians (consultants or residents) but they were not always available when needed. Some hospitals did not have 24-hour doctor coverage. Most hospitals complained of having an inadequate number of staff with sufficient skills for comprehensive newborn care. There was also a high turnover of nursing staff and problems with their attitude.

Difficulties with referrals

There were difficulties with referrals to government facilities for specialized neonatal care as there were no established referral networks. Public facilities could not always admit patients due to a lack of space, oxygen, or CPAP. Industrial (strike) actions by the staff of public hospitals also affected referrals. Thus some caregivers refused to be referred to government facilities especially as they would still have to pay for some services. Some parents felt they would receive better care in private hospitals.

The behaviour of Parents/Caregivers

Some caregivers refused to cooperate with instructions e.g. they gave neonates other substances to drink apart from breast milk and insisted on bringing many of their relatives and friends to see the baby.

TABLE I-Suggested Solutions to Challenges Faced by Private Hospitals in Providing Newborn Care

CHALLENGE	SUGGESTED SOLUTION
FINANCE	•Expand enrolment into Health insurance schemes
	• Timely, regular payments by *NHIA
	• Bank loans- Affordable, accessible
	• Easy repayment plans
Equipment	• Develop appropriate technologies for local needs
	• Train biomedical technicians and engineers
	• Second hand equipment
	• Improved transport options
	• Training in Kangaroo Mother Care
Electricity	• Use of solar panels
	• Reduced electricity tariffs for Hospitals
NON-FINANCIAL	
Parents/Caregivers	• Education during **ANC
Late presentation	• Improve obstetric practices
Poor clinical condition	• Education and Counselling
	• Increase awareness of the need to enrol in Health insurance schemes
	• Family savings for health expenditure
Referrals	
	• build good referral networks
Staff knowledge and skills	• Training and retraining in Clinical and Business Skills
	• Making training a requirement for license renewal

*NHIA – National Health Insurance Agency -formerly NHIS) **ANC – Antenatal Care

- **Finance**

Respondents felt increasing the number of people enrolled in health insurance schemes would help prevent catastrophic out-of-pocket expenses for caregivers. However, the Health insurance companies should be mandated to re-imburse neonatal care costs adequately and pay bills made on time.

Parents and caregivers also need to be counselled to save money for health as enrolees of insurance schemes have to pay a percentage of bills directly to the health facilities.

- **Training**

Respondents felt training would improve the quality of their services. The following training needs were identified - improving skills in newborn resuscitation, immediate and follow-up care of newborns, feeding and nutrition, Kangaroo Mother care (KMC), exchange blood transfusion, education, and effective counselling of caregivers.

OTHER SUGGESTIONS

- **Improved collaboration - between** facilities to ensure better communication
- **Improved transport options** - e.g. transporting with mobile/small oxygen cylinders.
- **Government support** - providing basic equipment for neonatal care or subsidizing their cost.
- **Provision of solar panels** - to facilities to provide uninterrupted power supply and protect equipment from power surge damage.
- **Biomedical engineers and technicians** - Promotion, provision of support, and adequate training and re-training
- **Development of appropriate and standard technologies** - to meet local needs

Discussion

This paper gives an insight into real-life challenges that the formal private medical sector faces in providing care for sick and small newborns. The private medical facilities are situated in two cities (Kaduna and Zaria) which have government hospitals with well-functioning neonatal units, but these made up less than 10% of medical facilities that could provide CLINICAL care for sick and small newborns. The neonatal conditions they saw are those commonly managed in government hospitals in low-resource settings[16,21,25] and the challenges they identified impacted the services they provided for newborns.

Their major challenges involved finance, and this could be a major obstacle to parents and caregivers accessing care for their newborns. It also discouraged some private practitioners from attending to small or sick babies which could limit the growth and development of private neonatal services. Measures that could help reduce the cost of providing services include the use of KMC (which would reduce the need for expensive incubators); second-hand incubators, locally fabricated phototherapy units, and locally assembled bubble CPAP though they may not work as effectively as commercially available equipment[26,32] .Increasing capital and credit facilities would help but studies that investigated the needs of private healthcare providers in Nigeria stated that owners of private facilities were reluctant to obtain bank loans that could help them purchase equipment and grow their businesses[21,33]. Government and/or NGO support could make loans more attractive by making them easier to obtain, providing lower interest rates, and easier repayment plans[34]. Increasing the number of people enrolled in insurance schemes (like NHIA) could reduce catastrophic out-of-pocket expenditure of parents and caregivers and help parents and caregivers pay for services. This occurs in high-resource countries but unfortunately, since the NHIA scheme was first launched in 2005, less than 10% of the country's population is enrolled in it[35]. Making it

compulsory for civil servants to enrol is one way of increasing population coverage. So is establishing other insurance schemes (e.g. state, community, and private health insurance schemes)[36]. Some of these schemes are already in place in some states but for health insurance schemes to be effective and sustainable, the government must mandate health insurance companies to promptly settle the bills of the private practitioners. Further, enrolees need to be educated to save for healthcare (no matter how small) as most insurance schemes require some financial contribution from users.

The respondents also identified other challenges that they felt were important though they did not seem to incur financial costs to them. These non-financial challenges included the transport and clinical state of newborns before presentation, insufficient knowledge of staff about newborn care, problems with referrals, and issues with parents/caregivers. Insufficient knowledge of newborn care of staff can be improved by training and retraining. Private healthcare providers in five other states of Nigeria also acknowledged the need for training [21,33]. So did health workers from 11 countries who participated in a survey to identify key challenges facing healthcare systems in Africa[36]. Training can improve clinical skills and could be made a mandatory requirement for the renewal of licenses of staff. However, training must be carried out in ways that would cause the least disruption of services as private hospitals have limited staff and a high staff turnover. One topic that must be included in the training is family-centred care, especially as difficulty in managing patients and caregivers was acknowledged to be an issue. Training could help staff actualize the principles of family-centred care which focuses on involving families in patient care through information sharing, participation, and collaboration with dignity and respect[37]. The use of guidelines developed by the World Health Organization (WHO) and the Federal Government of Nigeria[38,39], could help staff manage clinical problems. However, shorter versions of the guidelines and posters that emphasize key messages would probably be more impactful.

Surprisingly, no respondent mentioned a desire for training in business management - possibly because they were not directly asked about it. Yet studies that investigated the needs of private healthcare providers in Nigeria stated that some of them were not aware of the importance of business and financial management, and resource control[21,33]. Business training could help with problems of staffing by providing training in leadership skills, effective team management, staff discipline, and accountability.

Some challenges could only be dealt with by the successful implementation of government policies. These include improving obstetric care in the community and building strong referral networks[37]. However private medical hospitals expanded access of newborns to skilled healthcare. With support, they could provide more data about neonates and NMR. This is important because data helps identify the unmet needs of newborns. Further, private medical facilities could contribute to identifying low-cost technologies that could assist in improving the survival of sick and small neonates[37].

THE ROLE OF NISONM (Table II)

NISONM has a big role to play. Though members of the association are already working with Private medical practitioners, collaboration with them needs to be increased. The adage "*Nothing for us, without us*" applies if realistic solutions are to be sought. Quick surveys (like this one) should lead to in-depth research that focuses on addressing the challenges, training needs, and solutions highlighted. Most importantly, NISONM which is already partnering with the government[40], must advocate for increased inclusion of private-sector medical providers in national and regional strategies to improve newborn care. Advocacy is a very important step in solving Africa's healthcare challenges[36]. NISONM should be involved in clinical training, and encourage the use of guidelines, which should be regularly updated taking into account available local resources[41]. Further, as the government recognizes the importance of engaging private-sector providers to invest in healthcare[22, 39,] NISONM could encourage philanthropists to support caregivers who have difficulty paying their bills. NISONM could also support and encourage investment philanthropists, health insurance agencies, and businessmen to invest in establishing and running public-private neonatal units. Such units could provide varying levels of care (from basic to high-level neonatal intensive care units)[37,42]. However, probably the most challenging role of NISONM is to ensure the implementation of recommendations of academic

research and monitor the effectiveness of policies[11,43]. For NISSOM to achieve these objectives and expand its sphere of influence, it should consider involving community "champions", social media influencers, and medical practitioners from other disciplines. This might mean making them associate members of the society.

TABLE II

The Role of the Nigeria Society of Neonatal Medicine

1. Collaborate with Private Health Practitioners Involve them by - Explaining EXACTLY what you would like them to do - Develop Strategic plans WITH THEM - TRAIN– for newborn Care - Facilitate business training
2. Research – implementation research using quick, easy surveys and in-depth studies
3. Advocate - For Government recognition and support - For support from *NGOs and Philanthropists - Reduced electricity tariffs
4. Encourage Investment – +PPP and ++NICUs
5. Monitor Implementation of Policies and interventions
6. Expand Membership

*****NGO – Nongovernmental organizations

+PPP – Public-Private Partnership

++NICU – Neonatal intensive unit

Strengths and limitations

The strength of this study is that it addressed a common though often unreported real-life situation from the private medical practitioners' perspective. A self-administered questionnaire was used to avoid interviewer bias, but the small sample size and the non-inclusion of unregistered medical facilities may have led to selection bias. This could have resulted in responses that are not representative of all private hospitals. However, the findings may represent a "best-case scenario" as not all private medical facilities have the resources to provide the care indicated in this study.

Recommendations

It is recommended that governments and organizations interested in achieving the SDG3.2 target should increase their collaboration with Private medical practitioners. They should be involved in strategy development as many of them have links to their local communities[11]. Ensuring health insurance organizations settle payments due to private medical practitioners and increasing insurance coverage should be a priority of governments. Governments should also provide clinical and business training and build effective referral networks[16]. NISONM must advocate for government support, supervise policy implementation, encourage investment in public-private neonatal units, and consider expanding its membership. The findings of the study merit attention in future studies which should include both registered and unregistered private practitioners with researchers.

Conclusion

One of the strategies to be considered in the SDG3.2 target is to be reached is the widespread inclusion of private medical

practitioners. They should be encouraged to provide or improve their care of sick and small newborns. However, though MONEY MATTERS do MATTER, in providing effective newborn care, it is not all about MONEY as the non-financial challenges they face also need to be addressed. These, in conjunction with other measures, have the potential to contribute to improved care of neonates and the fall of NMR in Nigeria and other resource-constrained countries.

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