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Review Article

Prevention of respiratory Distress Disease in Pregnancy and Newborn: a Case Review of the Capacity of Primary Healthcare tier in Delta State Nigeria

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Abstract

The Universal Declaration on Human Rights regarding Primary Health Care (PHC) in Nigeria is to provide adequate and equitable healthcare to pregnant mothers and new born. This includes those who are at risk of respiratory distress disease. The objective of this work is to identify the capacity of PHC in the management of respiratory distress syndrome among pregnant mothers and new born. A narrative review of literatures on respiratory distress performed. There have been shortages of staff and health inequity while improvement in maternal and child mortality rates may be attributable to improved knowledge and health seeking behavior. PHC practitioners' need to be motivated because they are available and useful in rendering preventive services for respiratory distress disease during pregnancy and new deliveries for better results.

Keywords: primary health care, respiratory distress disease, pregnancy, newborn, maternal health care

Introduction

Primary health care is all about the health and well-being on the preference of individuals, families and communities. It explains the nature of health and focus on the complete interrelated aspects of physical, mental and social health and wellbeing [1]. It provides care for health needs throughout the lifespan of a person, not just for a set of specific diseases thereby ensuring comprehensive care ranging from promotion and prevention to treatment, rehabilitation and palliative care as close as feasible to people's everyday environment [2]. Primary Health Care (PHC) is driven by a political philosophy that emphasizes a radical change in both the design and content of conventional health care services. It also advocates an approach to health care principles that allow people to receive health care that enables them to lead socially and economically productive lives. The year 2008 celebrated 30 years of PHC policy that emerged from the Alma Ata Declaration with publication of two key reports, the World Health Report 2008; and report of the Commission on the Social Determinants of Health [3]. However, this has been noted as a failure in Nigeria [4], especially based on infant mortality rate that increased between 1982 and 2003 (**Figure 1**).

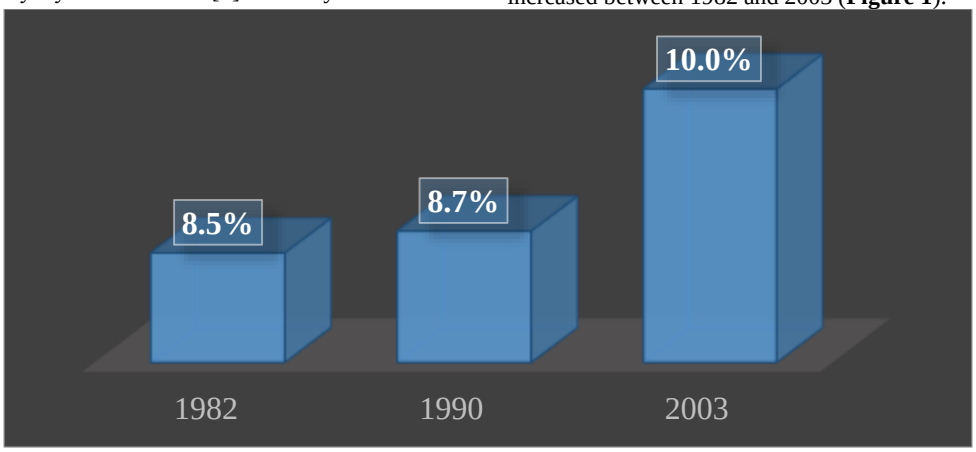

Figure 1: Reported increase in infant mortality despite PHC agenda [4]

PHC forms the bedrock of the health-care services and the health status of the state is determined by the quality of health care available to the majority of the population which is the best indicator for the level of social development of the state. Being efficient with regard to cost, techniques and organization; Readily accessible to those concerned; Acceptable to the community served; At a reasonable cost; are some of the important conditions of Primary Health Care Services in any state [5]. Health-care services are also required to be available in a manner and language that is suitable to the community and population it serves including accommodation of local traditions and customs, and at a price which the population can afford [6, 7].

Patient satisfaction is associated with continuity of care and clinical outcomes. Service utilization is based on client satisfaction and this is applicable to healthcare. Patient satisfaction is thus a key marker for the quality of health-care delivery and an important indicator for evaluation and improvement of health-care services [8, 9]. Thus, there are some attributes that determine the satisfaction of patient, which must be attributed by the health care workers. With special regards to respiratory distress, a cursory literature search on PubMed for 'Alma ata' with the additional terms 'respiratory distress syndrome' and 'Nigeria' yielded no article. However, search for 'primary healthcare with the additional terms 'respiratory distress syndrome' and 'Nigeria' yielded 3 articles.[10-12]. This implies limited research report in the area of respiratory distress syndrome from Nigeria with regards to PHC.

Yet, there has been evidence that action is needed by the government to improve PHC in several public health issues such as oral care and infections amongst others [13-16]. It is known that essential drugs are used for the treatment of most common diseases; mother and child care; vaccination campaigns; and water, sanitation and nutrition programs are part of minimum package of activities that is been carried out in acute and chronic crisis conditions. Ensuring advice and preventive treatment are given to pregnant women considering the fact that an antenatal care is given to pregnant women and these care include prevention of malaria and anaemia, tetanus immunization, personalized information for mothers [10, 17, 18]. What has yet to be articulated is the extent of respiratory distress syndrome services at the PHC level. Hence, the objective of the review is to assess the capacity as well as opportunity of healthcare professionals, government and community.

Stakeholders' evaluation

First, it is pertinent to note that stakeholders comprise a vast array of entities that are integrally involved in the healthcare system. This includes the patients being the beneficiaries, as well as indispensable healthcare providers, payers, and the policymakers all with varying levels of relevance (**Table 1**). Suffice that anyone or party who provides, receives, manages or pays for healthcare, a person or group of people with interest in an organization who can either influence the organization or be influenced by its work is a stakeholder [19, 20]. However, it is important to note that the host community is probably the underdog or relatively powerless compared to the government in planning and implementation of a public PHC (**Figure 2**).

Policymakers:	Policymakers are the ones who establish the framework within which health care is provided to the country's citizens which is either the ministry of health. The policymakers aggregate data from patients, providers, and payers to develop population-level metrics that inform their health and health economic policies on who is eligible to receive care, how, where and by whom. How service is paid for, are they well delivered and accessible for all
Patients	We all are patients at one time or the other. Patients are the citizens, voters, and most times taxpayers. Policymakers have a fiduciary duty to this population, and the country's policy framework is established to benefit patients. Patients receive care services from providers and are the beneficiary customers of the payers and them sometimes to access their information's about their care via an electronic device (e.g., personal computer, mobile phone).
Providers	Providers operationalize care delivery within the policy framework. They provide health services to patients and maintain health information about them. The providers coordinate patient care with other providers as care team members. Many providers are independent businesses that must manage their own operations and finances.
Payers	Payers operationalize the financial elements of the policy framework. Patients are enrolled as beneficiaries by Payers. They procure care services from the providers on behalf of their patient beneficiaries. They also must take on the actuarial task of ensuring the financial sustainability of the care program and make their report to the policymakers

Table 1. Overview of a stakeholder [20]

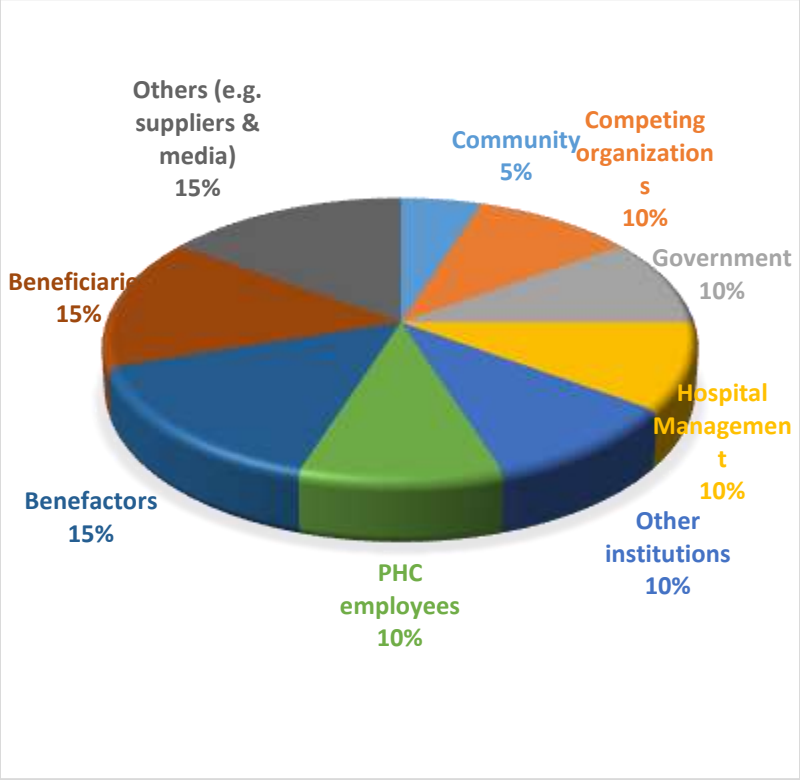

Figure 2: Estimated relative importance of stakeholders [19]

Evaluation of Health Care Professionals:

Health care professionals play a central and critical role in improving access and quality health care for the population. Their services include preventive medicine, health promotion through education, and deliver curative health care services to individuals, families and communities [5]. Primary healthcare workers are the main drivers of population-oriented health education programs. They facilitated improvements in service utilization; in fact, the 80% immunization coverage in the country for vaccine-preventable diseases reported in 2013 was attributed to the role of PHC workers. The PHC workers provide care closest to community members; they mobilize and empower communities for health actions, thus promoting equity and ensuring accessible health care [21]. Therefore, for PHC workers to be effective in providing preventive care for respiratory distress disease in pregnancy and new born, they require capacity enhancement to assure quality service delivery and better outcomes.

In this narrative review, findings show that the capacity to render maternal and childcare respiratory distress syndrome at PHC facilities has been there [22]. Various cadre of health professionals have been involved in respiratory distress syndrome management; and that there is improvement in management outcomes [23-26]. However, two observations are interesting to note. First is that virtually all available reports are based on secondary and tertiary level hospitals with no reference to services at the primary tier. Second is that there is need to limited competence, which calls for special professional training of the healthcare professionals [11]. This highlights that in terms of capacity, motivation and opportunity among healthcare professionals, what is needed is opportunity.

Evaluation of management (government and policy makers)

The treatment purpose of child with respiratory distress syndrome is to avoid hypoxemia, acidosis, fluid overloading in an attempt to avoid hypovolemia and hypotension and also minimizing lung injury. The most important advances in prevention and treatment of respiratory distress syndrome are: a) antenatal glucocorticoids, b) surfactant administration, c) continuous positive airway pressure (CPAP). These have decreased morbidity and mortality from respiratory distress syndrome [27]**.** In one recent report of study that investigated the quality of service associated with neonatal and perinatal and neonatal mortality, results from the Nigerian tertiary health facility highlighted the need for improvements on emergency obstetric services before to referral to tertiary facilities [28]. In another report from international community that highlighted the historical improvement in neonatology, improvement in staffing and facilities were core attributes [29]. therefore, it suffices to echo the report of Ogunlesi et al (2019) that the government through the ministries of health and management boards need to necessarily provide the manpower to run PHC facilities with a view to cater for respiratory distress syndrome at the community level. This resonates with what is known that Nigeria health ministries need to get the formula right [4].

Evaluation of the community

A preliminary survey of the level of knowledge had been carried out in some communities. The questionnaire included whether gas flaring contribute to air pollution and possible effects of the gas flares regarding health impact. The results showed very high proportion of the people are aware of the effect on human health including awareness that nearness to the gas flare site is a risk factor; with only 3% responses implying not being aware. What appeared confounding was that a little higher percentage agreed indicated effect on respiratory distress. Also, 69% or

more of the respondents indicate having experienced the respiratory distress effect (**Figure 3**). Further results show that the people do seek medical attention from nearby secondary tier hospitals.

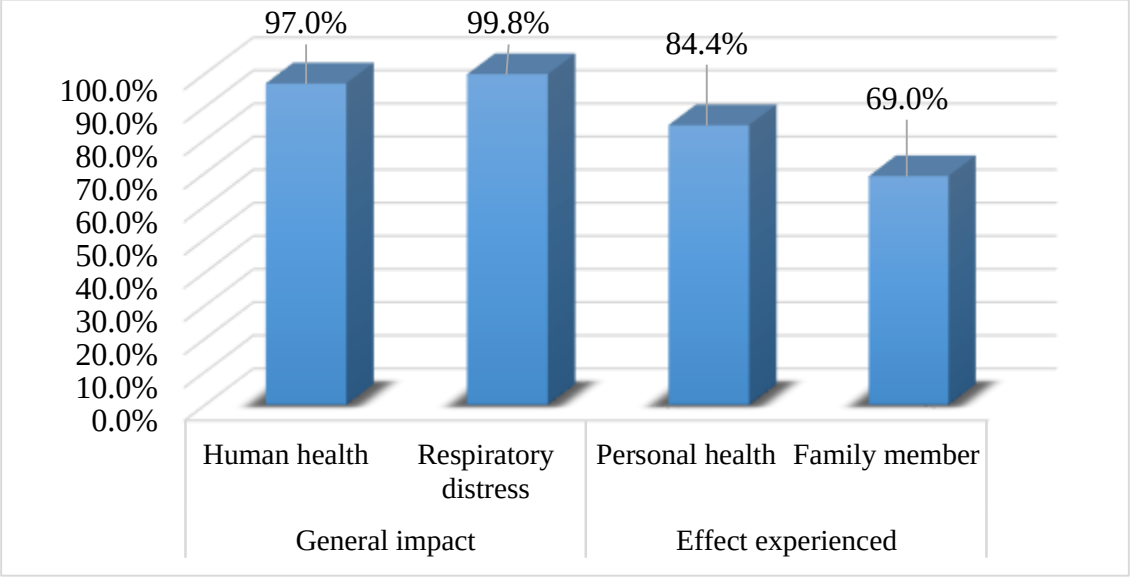

Figure 3: Awareness and experience levels regarding impact of air pollution on respiratory distress

Discussion

In most Africa countries, most health systems do struggle to provide quality primary health care to all members of their population. They have been shortages of staff, unreliable disbursement of medicines, health financing being inadequate while transitioning health information systems have been a persisting challenges that further deepen inequities in the quality of care provided across countries [5]. The changing burden of disease with increasing non-communicable chronic diseases means that health systems have to care for patients with complex health care needs. In addition to preventive, promotive and curative care, some patients will also require continuing chronic care management with links to the community and social services. Identifying problems and solution, then prioritizing the responses, is a critical part of improving PHC and ultimately of achieving better health and well-being, but too often this is approached in a technocratic manner.

In this brief review, focused attempt has been on PHC in Nigeria with regards to providing adequate care to pregnant mothers and new born who are at risk of respiratory distress disease. The objective was to identify the capacity of PHC in the management and prevention of respiratory distress disease among pregnant mothers and newborn. Based on the evaluation, it can be misconstrued that PHC has been indirectly providing services. However, a cursory review shows no literature or evidence of PHC with maternal and child health care unit. Instead, it has been noted that oxygen is not available in every hospital with personnel to manage acute respiratory distress syndrome [10]. There have been shortages of staff and inequitable funding [6, 7, 16]; while implementation of PHC has been known to be suffering political will [4]. It is probably correct, as reported by limited literature, that maternal and child mortality rates have improved. However, it is arguably equally correct to attribute the improvements are not due to PHC service provision being now more available, but the people becoming more knowledgeable and proactively travelling long distance to seek healthcare. Thus, the issue of health inequity and this paper advances that the capacity in terms of knowledge is availability. Also the opportunity in terms of health needs for service is also available. What is missing is motivation in terms of health policy makers' attitude to provide the necessary human and material resources in the PHC facilities.

Conclusion

Resources need to be mobilized and allocated appropriately to ensure adequate funding is available and ultimately supports PHC services. It should be borne in mind that the PHC approach is cost-effective and generates efficiencies, delivering health improvements. The government should work on the aspect of staff shortages by recruiting new staff and sending them on regular training and workshops that will add to and upgrade their knowledge.

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