Open Access Blood Research & Transfusion Journal
ISSN: 2575-8934

Juniper Publishers
key to the Researchers

Mini Review
Volume 2 Issue 2 - April 2018
DOI: 10.19080/OABTJ.2018.02.555584

Blood Res Transfus J

Sickle Cell Disease Child Mortality - A Silent Epidemic in Nigeria: Issues in Political Economy

Caroline Okumdi Muoghalu*

Department of Sociology and Anthropology, Obafemi Awolowo University, Nigeria

Submission: March 02, 2018; **Published:** April, 03, 2018

***Corresponding author:** Caroline Okunmdi Muoghalu, Department of Sociology and Anthropology, Obafemi Awolowo University, Nigeria, Tel: +2348056681600; Email: omuoghal@yahoo.co.uk

Abstract

In Nigeria, 150,000 babies are born with sickle cell disease annually. Child mortality among children living with sickle cell disease in Nigeria becomes important due to the high number of children born with this disease and due to the high morbidity associated with the disease. Using the political economy perspective, this mini review paper examined the child mortality levels associated with sickle cell disease in Nigeria and the causes of this mortality. Relevant literature was reviewed through Pub-med and Google search engines. A very high sickle cell child mortality level was indicated. Also, chronic pain, stroke, hypertension and bacteria infection were the major causes of morbidity among children with sickle cell disease in Nigeria. The paper concludes that sickle cell child mortality in Nigeria is high and the causes of these deaths can be prevented but problems associated with the political economy of Nigeria continues to militate against achieving improved survival rate for children with sickle cell disease.

Keywords: Sickle cell disease; Political economy; Child mortality and morbidity

Introduction

Every single day, Nigeria loses about 2,300 under five year olds [1]. As such, child mortality in Nigeria may be said to be one of the highest in the world. In this paper, a child refers to a young person within the ages of zero to five years. Nigerian under five mortality rate stands at 104 per 1000 live births in 2016 [2] making it a great public health concern in the country. Also, World Health Organization [3] posited that Nigeria has the third highest infant mortality rate in the world [3].

Importantly, many of these deaths occur among children with sickle cell disease. Sickle cell disease is a genetic blood disorder affecting red blood cells with high morbidity and mortality rates [4]. It is the commonest hemoglobinopathy and single gene disorder in black Africans [4]. The world health organization (African region) estimated that more than 300,000 babies are born with severe forms of hemoglobinopathies each year. While 75 percent of this is in sub-Saharan Africa, Nigeria alone accounts for 100,000 new births every year [3]. Nearer home, Akinset [5] (The national Director of Sickle cell foundation of Nigeria) revealed that about 150,000 children are born with sickle cell disease annually, representing the highest number of persons born with the disease across the globe. This is an indication of a high prevalence rate of sickle cell trait in Nigeria. For instance, Omotade et al. [6], found a 25 percent of sickle cell disease carrier rate and 2-3 percent sufferers rate among Nigerians.

In-spite of the high rate of sickle cell deaths among children in Nigeria, the government as well as researchers have not paid much attention to child deaths making it a silent epidemic. As noted by Inusa et al. [7], although intervention programmes have been implemented for other conditions, there are no established programmes for sickle cell disease despite substantial morbidity and mortality associated with it. In the same vein, Adewoyin [8] noted the absence of dedicated sickle cell centres in Nigeria, rather sickle cell disease forms a small part of clinical practice of general duty doctors. This is inspite of the attention drawn to the importance of developing a concrete programme by Ngwube et al. [9]. As noted by these authors, morbidity and mortality of children with sickle cell disease in Nigeria are preventable. The scenario in Nigeria is rudimentary to the extent that ordinary sickle cell infant screening programme has not been established [10].

Sickle cell disease and child mortality in Nigeria becomes topical due to the fact that losing so many children to sickle cell disease can be a sign that there are gaps in knowledge which need to be filled in order to manage the disease better and have better outcomes. This mini review will therefore examine child deaths due to sickle cell disease in order to ascertain incidence and causes of deaths. The implications of these will be discussed relying on the political economy perspective. My argument in this paper therefore is that it is issues in the Nigerian political

economy that produce high mortality rate for children with sickle cell disease in the country.

Methods

Materials were sourced from published peer reviewed research articles from pubmed and google search engines. The terms used in the search were sickle cell disease, child mortality, incidence and Nigeria. Owing to the fact that researchers in Nigeria had not paid much attention to the problem of sickle cell and child mortality, relevant literature were difficult to find and few relevant articles were reviewed for this paper.

Child mortality due to sickle cell disease in Nigeria is the incidence of death among children with the disease. It is important to note that many cases of child mortality due to sickle cell disease in Nigeria is not usually reported because many occur in home settings. This was noted by Ogun et al. [11] that it is difficult to report cases of death when it occurs in home setting especially in early childhood and especially for a disease condition like sickle cell that is emotionally and financially tasking. Infact, there may be many children with sickle cell disease that may not be diagnosed before their death in Nigeria. This is because there is no official screening program for new babies and they are taken to hospital only when they are critically ill, that is, if the family is favorably disposed to hospital treatment.

This is to say that any reported child mortality due to sickle cell disease in Nigeria is likely to be below the real mortality rate. However, some scholars have made attempts at estimating the child mortality associated with sickle cell disease in Nigeria. Aygun and Odame [12] estimated 50-80% of children born with sickle cell disease die before the age of 5 years. In the same vein, Inusa [7] posited that only 50 percent of children with sickle cell disease live past the age of ten in Nigeria. Meanwhile, the life expectancies for people with sickle cell disease in high resource countries were 42 for men and 48 for women in the USA [13] and 53 for men and 58.5 for women in Jamaica [14]. These statistics showed a great difference between the sickle cell mortality in Sub-Saharan Africa and high resource countries which may be due to cultural, political economical issues that are beyond the individual families.

As noted by Mulumba and Wilson [4], the high Sickle cell mortality rates in Sub Saharan Africa are influenced by multiple factors such as limited resources leading to poor access to care and lack of comprehensive sickle cell disease management programmes. This was supported by Aygun and Odame [12] that children born in high resource countries with major hemoglobinopathies have higher chances of survival and lower mortality rates than those born in poor resource countries. Modell and Darlison [15] attributed the higher life expectancies for sickle cell disease patient in high resource countries to earlier diagnosis, greater access to care and education of caregivers. It is important to note that life expectancies for Sickle cell patients in Nigeria were estimates and not much empirical research have been done on sickle cell and child mortality. Why is it that only few research is being conducted on sickle cell disease in-spite of the high prevalence rate in Nigeria. These are issues in the political economy of Nigeria which have serious implications for the management and containment of its spread.

The Sickle cell child mortality in Nigeria is caused by chronic pain, stroke, pulmonary hypertension [4]. Also Platt et al. [16] submitted that bone pain crises is the most consistent and characteristic feature of sickle cell disease. Sickle cell disease further predisposes sufferers to acute infection, cardiovascular diseases and severe abdominal pain [8]. These are indications that sickle cell come with a lot of morbidities that tend to make life unbearable especially for children living with sickle cell disease in Nigeria.

Brief Discussion

This review found 50 to 80 percent sickle cell mortality among children with sickle cell disease in Nigeria. This implies that more than half of babies born with sickle cell disease die before they reach adulthood. This bleak statistics is a sign that many babies born with sickle cell disease in Nigeria die before they reach puberty. It is also an indication that sickle cell disease contributes immensely to child mortality in Nigeria. The issue here is that in most cases, what is talked about is child mortality but not much efforts have been made to separate child deaths due to sickle cell disease from mortality due to other causes. As such, stake holders have not taken notice of sickle cell disease as a major contributor to child mortality. This is why I called it the silent epidemic. Also, this statistic raises the question: why is survival rate of children born with sickle cell disease in UK and America much higher than that of those born in Nigeria. For instance, Quinn.Rogers et al. [13] found 42 years for men and 48 years for women life expectancy for people living with sickle cell disease in the USA.

This difference in survival rate can be attributed to issues in the political economy of Nigeria. This paper looks at the influence of political economy from the angle of the fact that in-spite of the huge number of the citizenry who are affected by sickle cell disease, there has not been any concrete government policy and action aimed at free health care for people living with sickle cell disease. Despite the fact that Ngwube et al. [9] were writing in 2009, there is still no comprehensive health programme for this group of patients. Moreover, medical personnel are not undergoing the needed training to acquire needed skills in managing sickle cell disease patients. Furthermore, government is not readily funding research on sickle cell in Nigeria. Apart from these, the political economy that is filled with corruption has resulted in general poverty among Nigerians. Many families with children living with sickle cell disease do not have access to quality healthcare and user charges in hospitals makes it difficult for many of such families to afford quality healthcare. As such sickle cell child morbidity and mortality may have a

How to cite this article: Caroline Okumdi Muoghalu. Sickle Cell Disease Child Mortality - A Silent Epidemic in Nigeria: Issues in Political Economy. Blood Res Transfus J. 2018; 2(2): 555584. DOI: 10.19080/OABTJ.2018.02.555584

socio-demographic face. Also included in the political economy is the cultural orientation of some Nigerian communities. Some cultures belief that babies with sickle cell disease are *Ogbanjes* (babies that come to the world and die soon to come back again and again). Any family from such a community may not bother to take a child with sickle cell disease to hospital for treatment. This is also considering the fact that public health education is not being given its deserved attention in Nigeria.

Importantly, the implication of all these is that the high sickle cell child mortality is preventable but has not been given the needed attention by the Government and other stakeholders. The implication for health practitioners in Nigeria is that greater care and attention should be paid to children living with sickle cell disease in order to reduce sickle cell mortality rate. The paper concludes that there is high incidence of sickle cell child mortality in Nigeria and that the causes of these deaths can be managed, an indication that these deaths can be prevented. However, issues in political economy continue to militate against achieving improved survival rates for children with sickle cell disease.

References

1. UNICEF (2013) The children- Maternal and child health.
2. World data atlas (2016) Nigeria underfive mortality rate. Nigeria.
3. World Health Organization Organization (2017) Nigeria has third highest infant mortality rate in the world. Levels and trends in child mortality 2017. WHO, Geneva, Switzerland.
4. Mulumba L, Wilson L (2015) Sickle cell disease among children in Africa:An integrative literature review and global recommendations. Int J African Nursing Sci 3: 54-64.
5. Akinsette A (2016) Sickle cell Anaemia. Annually, 150,000 children are born with sickle cell disease in Nigeria.
6. Omotade O, Kayode C, Falade S, Ikpeme S, Adeyemo A, et al. (1998) Routine screening for sickle cell haemoglobinopathy by electrophoresis in an infant welfare clinic. West Afri J Med 17(2): 91-94.
7. Inusa BP, Daniel Y, Lawson JO, Dada J, Matthews CE, et al. (2015) Sickle Cell Disease Screening in Northern Nigeria: The Co- Existence of B-Thalassemia Inheritance. Pediat Therapeut 5: 262.
8. Adewoyin AS (2015) Management of Sickle cell disease: A Review for physician education in Nigeria (Sub-Saharan Africa) Anemia 2015: 791498.
9. Ngwube, A, Jackson, S, Ezekwem C (2009) Preventable morbidity and mortality in children with sickle cell disease and fever: the need for a national protocol. Letter to the editor: Nigerian journal of paediatrics 36(2 & 2): 47-48.
10. Odunvbun M, Okoro A, Rahimy C (2018) Newborn screening for sickle cell disease in a Nigerian hospital. Public health 122(10): 1111-1116.
11. Ogun G, Ebili H, Kotila T (2014) Autopsy findings and pattern of mortality in Nigerias sickle cell disease patients. Pan Afr Med J 18: 30.
12. Aygun B, Odame (2012) A Global Perspective on sickle cell disease. Paediatria blood and cancer 59(2): 386-390.
13. Quinn C, Roger Z, Mc Cavit T, Buchanan G (2010) Improved survival of children and adolescent with sickle cell disease. Blood 115(17): 3447-3452.
14. Wierenga K, Hambleton I, Lewis N (2001) Survival Estimates for patients with homozygous sickle cell disease in Jamaica: A clinic based population study. Lancet 357(9257): 680-683.
15. Modell B, Darlison M (2008) Global epidemiology of haemoglobin disorder and derived service indicators. Bull World Health Organization 86(6): 480-487.
16. Platt O, Wambilla D, Rosse W, Milner PF, Castro O, et al. (1994) Mortality in sickle cell disease: life expectancy and risk factors for early death. N Engl J Med 330(23): 1639-1644.

DOI: 10.19080/OABTJ.2018.02.555584

How to cite this article: Caroline Okumdi Muoghalu. Sickle Cell Disease Child Mortality - A Silent Epidemic in Nigeria: Issues in Political Economy. Blood Res Transfus J. 2018; 2(2): 555584. DOI: 10.19080/OABTJ.2018.02.555584