Review of: "Statistical Overview of Prevalence of Anaemia with Associated Socioeconomic and Demographic Factors in Nigeria"

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Potential competing interests: I would like to congratulate the authors for their effort. I find this work very relevant and deserves to be approved. To do this, as a contribution, I would like to send them some suggestions. Introduction As The introduction is too long, I suggest you delete the following parts in order to reduce it: • A condition called anaemia take place when there are less red blood cells or haemoglobin in the blood than usual, resulting in reduced oxygen delivery to the tissues. Also with various causes, such as nutritional deficiencies, infections, chronic diseases, genetic disorders and blood loss. • Anaemia, a disorder that affects people in both the developed and developing worlds and is characterised by a decrease in the volume of red blood cells (RBC), is a public health concern. The introduction could be started this way: Anaemia is a significant public health problem that particularly affects low- and middle-income populations…. Methods Instead of Research and Methods, I suggest Materials and Methods or simply Methods. Several studies have investigated the prevalence and determinants of anaemia in different regions and subgroups of Nigeria, using different methods and criteria. Some of the common factors associated with anaemia in Nigeria are: Socio-economic status: Low income, education, occupation and living standards are associated with higher risk of anaemia, due to poor dietary intake, hygiene and access to health care. Demographic factors: Age, sex, marital status and parity are also related to anaemia prevalence. Generally, younger children, females, unmarried women and multiparous women are more likely to be anaemic than their counterparts. Nutritional status: Approximately half of all cases of anaemia globally are caused by iron deficiency. Other micronutrient deficiencies, such as folate, vitamin B12 and vitamin A, can also contribute to anaemia. Malnutrition, obesity and dietary diversity are also important factors influencing anaemia risk. Infections: Malaria, intestinal parasites, HIV/AIDS and other infectious diseases can cause or exacerbate anaemia by affecting red blood cell production or survival, increasing blood loss or reducing iron absorption. Nigeria has a high burden of these infections, especially malaria, which is endemic in most parts of the country. Genetic disorders: Hemoglobinopathies, such as sickle cell disease and thalassemia, are inherited conditions that affect the structure or function of hemoglobin, leading to hemolytic anaemia or impaired oxygen delivery. Nigeria has one of the highest frequencies of sickle cell trait in the world, affecting about 20-30% of the population. The study of Ndukwu & Dienye (2012) assessed the widespread high prevalence of anaemia in pregnancy, particularly in developing nations like Nigeria. Nigerian local prevalence data varies from 35.3% in Lagos to 72.0% in Kano State. In Nigeria, the most prevalent causes are preventable and include nutritional deficits in iron and folate, parasite illnesses like malaria and hookworm, hemoglobinopathies, and most recently human immunodeficiency virus infection. Oliver et al, (2019) examined Anaemia among men in India: a nationally representative cross-sectional study. This cross sectional study assesses the population-based research on anaemia in India, which has primarily concentrated on women and children. Despite the negative effects of anaemia on health, well-being, and economic productivity, men with anaemia have received far less attention. In their effort to determine whether anaemia reduction efforts for men should be combined with those already being made for women, this study set out to determine the national prevalence of anaemia among men in India, how the prevalence of anaemia in men varies across India among states and districts and by sociodemographic characteristics, and whether the geographical and sociodemographic variation in the prevalence of anaemia among men is similar to that among women. The results and findings indicate that anaemia is a serious public health concern among Indian men. Given the similarities in the patterns of geographic and sociodemographic variation in anaemia between men and women, future efforts to reduce anaemia in males may focus on the same population segments as those targeted in current efforts to reduce anaemia in women. I suggest you remove this part from the introduction and reuse this them as part your discussion. Remember to cite each study. For example, if your results show a correlation between nutritional status and anaemia you should cite some previous studies where the same thing was observed. Data Analysis and Results Discussion Data analysis should be part of your methods. I suggest you title this section as Results and discussion, or you could also write a section for the results and another section for discussion. I suggest also to cite all the tables and figures previously in the texts by order of sequence. For example, the first table is named Table 1. Not table 3.1; Table 3.2 is Table 2; table 3.3 is Table 3 The anaemia is most prevalent among male children!!! Discuss this observation by citing some studies that previously showed the same thing. I suggest you cite at least the work of Tadesse and al. (2022) that shows Being female is a protective against anemia among under-five children. Malaria was also more prevalent with under-five children that are using mosquito nets!!! I find this surprising, because it should be the opposite, since the mosquito net at least serves as physical barriers to protect people from mosquito bites. Have the population installed the mosquito nets correctly? Or at least the mosquito nets don't have holes. Do the mosquitoes, depending on their time preference, not bite during the hours when the children are still on the playground? For example, during the first three hours of the night. References Too few references for such a large study.

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Introduction

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Methods

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Socio-economic status: Low income, education, occupation, and living standards are associated with a higher risk of anaemia, due to poor dietary intake, hygiene, and access to health care.

Demographic factors: Age, sex, marital status, and parity are also related to anaemia prevalence. Generally, younger children, females, unmarried women, and multiparous women are more likely to be anaemic than their counterparts.

Nutritional status: Approximately half of all cases of anaemia globally are caused by iron deficiency. Other micronutrient deficiencies, such as folate, vitamin B12, and vitamin A, can also contribute to anaemia. Malnutrition, obesity, and dietary diversity are also important factors influencing anaemia risk.

Infections: Malaria, intestinal parasites, HIV/AIDS, and other infectious diseases can cause or exacerbate anaemia by affecting red blood cell production or survival, increasing blood loss, or reducing iron absorption.

Nigeria has a high burden of these infections, especially malaria, which is endemic in most parts of the country.

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Data Analysis and Results Discussion

Data analysis should be part of your methods. I suggest you title this section as Results and Discussion, or you could also write a section for the results and another section for discussion.

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Anaemia is most prevalent among male children!!!

Discuss this observation by citing some studies that previously showed the same thing. I suggest you cite at least the work of Tadesse et al. (2022), which shows that being female is protective against anemia among under-five children.

Malaria was also more prevalent among under-five children who are using mosquito nets!!!

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