Assessing the Prevalence and Associated Determinants of Prematurity and Pediatric Malnutrition in Lesotho

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Research Question: What is the prevalence of premature birth and pediatric malnutrition in Queen Mamohato Memorial Hospital in Lesotho and what are the associated environmental and pathological factors?

BACKGROUND

Preterm birth, defined as birth before 37 weeks gestation, and pediatric malnutrition are major contributors of neonatal and infant morbidity and mortality worldwide. In 2017, Lesotho’s leading cause of neonatal death was preterm birth complications and the country’s preterm birth rate is 12% (1). Stunting rates (one measure of malnutrition) of children under 5 years of age in Lesotho are also high at 33% (2), and contribute to the poor health outcomes of many of the children hospitalized at Queen Mamohato Memorial Hospital.

QUEEN ‘MAMOHATO HOSPITAL

Queen ‘Mamohato Memorial Hospital, recently opened in 2011, primarily serves the patients from the Maseru district of Lesotho and surrounding areas. Although the hospital has been recording medical data electronically since its inception, there has been no formal analysis of the associated determinants of prematurity and pediatric malnutrition at this hospital. The goal is to provide informed guidance to health care providers, program managers, and policymakers for malnutrition and preterm birth. We aim to conduct facility-based cross sectional studies that include a retrospective chart review of births and children under 5 admitted at this hospital from 2015 to 2020. For the nutritional assessment, proposed variables for the study include anthropometric measures, biomarkers for blood (e.g. anemia) and stool (parasites), nutrition screening questions, and demographic data. For the prematurity assessment, variables include fetal death rates (e.g. intraventricular hemorrhage, retinopathy of prematurity), maternal factors (age, number of antenatal visits, parity, COVID-19 status), and environmental factors (environmental temperature, newborn thermal care practices).

METHODS

A review of the literature was performed and experts in the field were consulted to determine the variables needed to assess both prevalence and potential risk factors for malnutrition and preterm birth. We aim to conduct facility-based cross sectional studies that include a retrospective chart review of births and children under 5 admitted at this hospital from 2015 to 2020. For the nutritional assessment, proposed variables for the study include anthropometric measures, biomarkers for blood (e.g. anemia) and stool (parasites), nutrition screening questions, and demographic data. For the prematurity assessment, variables include fetal death rates (e.g. intraventricular hemorrhage, retinopathy of prematurity), maternal factors (age, number of antenatal visits, parity, COVID-19 status), and environmental factors (environmental temperature, newborn thermal care practices).

RESULTS

IRB protocols were prepared and submitted and the survey tools that identify pertinent data to be collected were sent to stakeholders in Lesotho for review. Due to the COVID-19 pandemic, data collection has not yet begun.

DISCUSSION

Assessing the prevalence of acute/chronic malnutrition and preterm birth and its determinants may inform future quality improvement programs. One possible program could be the implementation of screening tests for malnutrition at Queen Mamohato Memorial Hospital which may help assess a patient’s risk of malnutrition, guide hospital treatments, and plan for follow-up after discharge.

REFERENCES

7. Gabbe SG, Kar可知这些是参考文献，没有具体列出。