

Study Title: - Prevalence of undernutrition and associated factors among children under five years with congenital heart diseases at Mbarara Regional Referral Hospital

ABSTRACT

Background: Children with congenital heart disease are at increased risk of undernutrition compared with healthy children. Congenital heart disease is most prevalent in developing nations, and the majority of these children receive inadequate or no care at all. Their risk of undernutrition may be even increased by socioeconomic factors such as delays in seeking health care, delayed diagnosis and interventions, larger households, cultural norms and practices. The burden and associated factors of undernutrition among children with congenital heart disease are not yet well investigated in our setting.

Aim: This study aimed to determine the prevalence and associated factors of undernutrition among children ≤ 5 years with congenital heart disease attending the pediatric cardiac clinic at Mbarara Regional Referral Hospital.

Methods: We conducted a hospital-based cross-sectional study among 103 children with congenital heart disease presenting to the pediatric outpatient cardiac clinic of Mbarara regional referral hospital. Participants were consecutively enrolled from March to August of 2023. With a structured interviewer-administered questionnaire; child, caretaker, medical, nutritional and anthropometric measurements factors were collected. Statistical significance was set at p -value 0.05, and multivariate logistic regression was used to determine the associated factors.

Results: A total of 103 patients participated in the study. Over three-quarters of the children, 78/103 (75.7%) were undernourished, of whom 16/78 (20.5%) had underweight, 59/78 (75.6%) were stunted, and 3/78 (3.9%) were wasted. Household size and hospitalization frequency were associated with undernutrition (AOR = 3.8, 95% CI: 1.2–11.7, $p = 0.020$ and AOR = 9.2, 95% CI: 1.7–50.4, $p = 0.010$) respectively.

Conclusion: - There is high prevalence of undernutrition among children with congenital heart disease in this study (75.7%). Larger households and recurrent hospitalization were found to be associated factors of undernutrition in children with congenital heart diseases. We recommend regular nutritional assessment and specific nutritional education for children with CHD attending the cardiac clinics.