



Applicant Information

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Abstract Details

Title:

Comparative Study of Undernutrition in Children with Sickle Cell Disease in Ghana's Volta Region

Category:

Health promotion with nutrition and hygiene

Authors:

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Objectives:

To assess the prevalence, types, and factors associated with malnutrition among children aged 1-12 years with sickle cell disease, compared to non-SCD children of similar age at Ho Teaching Hospital (HTH).

Method:

This comparative cross-sectional study involved children with SCD and non-SCD children attending the paediatric OPD of HTH from July to September 2024. Sociodemographic data were collected through caregiver interviews; SCD data from hospital records. Weight, height, MUAC, and triceps skinfold were measured. Data were analysed using SPSS v29.0.

Results:

Of the 129 participants, 58 (45.0%) had SCD and 71 (55.0%) did not. The mean age was 70.83 (38.74) months, and the majority were males 77 (59.7%). Sociodemographic characteristics and reported food frequencies were similar between groups. Participants with SCD had consistently lower mean z-scores in all anthropometric parameters compared to non-SCD. Undernutrition as classified by weight-for-age (20.5% vs 4.2%, $p < 0.001$), weight-for-height (10.3% vs. 5.6%, $p = 0.031$), and mid-upper arm circumference (24.1% vs. 5.6%, $p < 0.001$) was more prevalent in the SCD group. In contrast, overnutrition was significantly rare in the SCD group. No sociodemographic factors associated were associated with undernutrition.

Conclusion:

Undernutrition was the predominant form of malnutrition among children with SCD in this study, with significantly higher prevalence compared to non-SCD children. Recall bias may explain the lack of association with socioeconomic factors. Routine nutritional services are essential to minimize complications in children with SCD.

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