

ABSTRACT

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RELATIONSHIP BETWEEN MACRO NUTRIENTS AND STUDENTS' NUTRITIONAL STATUS AT SDN 1 PARUNG PONTENG, TASIKMALAYA REGENCY IN 2024

Nutritional problems among school-age children are a significant public health concern, as inadequate nutrition can impact physical growth and academic performance. Macronutrients such as carbohydrates, proteins, and fats play a vital role in fulfilling children's energy and metabolic needs. This study aims to analyze the relationship between energy and macronutrient adequacy levels and the nutritional status of students at SDN 1 Parungponteng, Tasikmalaya Regency. A cross-sectional design was used with 51 students from grades III, IV, and V as respondents. Nutrient intake data were collected through 3x24-hour food recall and analyzed using NutriSurvey software, while nutritional status was assessed using BMI-for-age Z-scores based on WHO Anthro Plus standards. The results showed a significant relationship between energy adequacy ($p=0.000$), carbohydrate ($p=0.025$), protein ($p=0.042$), and fat intake ($p=0.044$) with the students' nutritional status. Students with inadequate macronutrient intake had a higher risk of malnutrition. These findings highlight the importance of monitoring dietary intake and implementing nutrition interventions in elementary schools to support optimal growth and development in children.

Keywords: Carbohydrates, Fat, Macronutrient Intake, Nutritional Status, Protein, School-Age Children