

THE RELATIONSHIP BETWEEN DIET AND THE RISK OF DIABETES MELLITUS IN ELEMENTARY SCHOOL CHILDREN GRADES 4-6 AT SDN TASIKMADU 1 MALANG

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ABSTRACT

Background : Diabetes mellitus (DM) in children in Indonesia shows a significant increase. The increase in type 2 diabetes is not only triggered by genetic factors, but also unhealthy lifestyles, such as unhealthy diets. **Research Objective :** To determine the relationship between diet and the risk of diabetes mellitus in elementary school children in grades 4-6 at SDN Tasikmadu 1 Malang. **Research Methods :** This research is a quantitative research with cross-sectional design. This research was conducted in May 2025. The study population was students in grades 4-6 of SDN Tasikmadu 1 Malang. The sample was 100 students. Data analysis using Chi-square test. **Research Results :** The majority of respondents with a high diet had a high risk of diabetes mellitus as many as 27 children (46.6%), while most respondents with a moderate diet were at low risk as many as 18 children (42.9%). This is reinforced by the results of the Chi-square test ($\chi^2 = 7.544$; $p = 0.023$) and linear-by-linear association ($\chi^2 = 7.135$; $p = 0.008$) showing that the total dietary pattern variable has a statistically significant influence on the risk of DM. This means that the unhealthier a child's diet, the higher the risk of experiencing an increase in early symptoms of diabetes. **Conclusion:** There is a significant relationship between diet and the risk of developing Diabetes Mellitus in elementary school children.

Keywords: Diet, Risk of diabetes mellitus, Elementary school children