THE RELATIONSHIP BETWEEN DIETARY PATTERNS AND THE RISK OF TYPE 2 DIABETES MELLITUS AMONG ADOLESCENTS WITH OVERNUTRITIONAL STATUS AT SMAS 1 DIPONEGORO TUMPANG

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ABSTRACT

Adolescents with excess nutritional status are at risk of developing Type 2 Diabetes Mellitus. Unhealthy dietary patterns such as the consumption of fast food, processed foods, sweetened beverages, and high sugar foods can increase the risk of metabolic disorders. This study aimed to analyze the relationship between dietary patterns and the risk of Type 2 Diabetes Mellitus among adolescents with excess nutritional status at SMAS Diponegoro Tumpang. A correlational study design with a cross-sectional approach was employed, involving a sample of 49 adolescents with excess nutritional status selected via Proportional Random Sampling. Dietary patterns were assessed using a Food Frequency Questionnaire (FFQ), while the risk of Type 2 Diabetes Mellitus was measured using the Finnish Diabetes Risk Score (FINDRISC). Data analysis was conducted using the Spearman Rank test. A total of 35 respondents (71.4%) exhibited unhealthy or high-risk dietary patterns. Based on FINDRISC results, 16 respondents (32.7%) were at low risk, 14 (28.6%) at fairly low risk, 15 (30.6%) at moderate risk, and 4 (8.2%) at high risk. The Spearman Rank test yielded $r = 0.766$ and $p = 0.000$ ($p < 0.05$). The findings indicate a significant relationship between dietary patterns and the risk of Type 2 Diabetes Mellitus among adolescents with excess nutritional status. This strong, positive correlation suggests that higher scores for high-risk dietary patterns correspond to higher scores for Type 2 Diabetes Mellitus risk. These results highlight the importance of addressing dietary habits in adolescents with excess nutritional status as part of efforts toward early detection and the prevention of Type 2 Diabetes Mellitus risk.

Keywords: Dietary Patterns, Risk of Type 2 Diabetes Mellitus, Adolescents, Overweight Nutritional Status.