ANALYSIS OF THE RELATIONSHIP OF BODY MASS INDEX, EATING PATTERNS AND SEDENTARIA BEHAVIOR WITH THE RISK OF TYPE II DIABETES MELITUS IN ADOLESCENTS AT DIPONEGORO HIGH SCHOOL TUMPANG MALANG

Feriska Anggraini[1], Dr. Hurun Ain S.Kep., Ns, M.Kep [2]
Program Studi Sarjana Terapan Keperawatan Malang, Jurusan Keperawatan Politeknik Kesehatan Kemenkes Malang Email : riskaferiska1000@gmail.com

ABSTRACT

Type 2 Diabetes Mellitus in adolescents is a health problem that can be influenced by various lifestyle factors, including Body Mass Index (BMI), dietary patterns, and sedentary behavior. This study aimed to analyze the relationships between BMI, dietary patterns, and sedentary behavior with the risk of Type 2 Diabetes Mellitus among adolescents at SMA Diponegoro Tumpang Malang. This study used a correlational design with a cross-sectional approach. The sample consisted of 67 eleventh-grade students selected using proportional random sampling. Data were collected through BMI measurements, the Food Frequency Questionnaire (FFQ), the *Adolescent Sedentary Activity Questionnaire (ASAQ), and the Finnish Diabetes Risk Score (FINDRISC)*. Data were analyzed using the Spearman Rank correlation test. The results showed that most respondents had a normal BMI category, with 40 respondents (59.7%), an unhealthy dietary pattern, with 35 respondents (52.2%), and a high sedentary behavior category, with 65 respondents (97.0%). The Spearman Rank correlation test showed no significant relationship between BMI and the risk of Type 2 Diabetes Mellitus ($r = 0.193$; $p = 0.117$), a significant relationship between dietary patterns and the risk of Type 2 Diabetes Mellitus ($r = 0.287$; $p = 0.018$), and no significant relationship between sedentary behavior and the risk of Type 2 Diabetes Mellitus ($r = 0.170$; $p = 0.169$). The study concluded that dietary patterns were significantly associated with the risk of Type 2 Diabetes Mellitus, while BMI and sedentary behavior were not significantly associated with the risk.

Keywords: Body Mass Index, Dietary Patterns, Sedentary Behavior, Risk of Type 2 Diabetes Mellitus, Adolescents.