

The Relationship between Dietary Pattern, Nutritional Status, and Genetic Factors with the Incidence of Diabetes Mellitus at Puskesmas Maesan

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ABSTRACT

Diabetes Mellitus (DM) is a non-communicable disease with an increasing prevalence and has become a major public health problem in Indonesia. This study aimed to analyze the relationship between dietary pattern, nutritional status, and genetic factors with the incidence of Diabetes Mellitus in the working area of Maesan Primary Health Center, Bondowoso Regency. This study employed a quantitative analytical observational design with a cross-sectional approach. A total of 100 respondents were selected using purposive sampling. Dietary pattern data were collected using a Food Frequency Questionnaire (FFQ), nutritional status was determined based on Body Mass Index (BMI), while genetic history and T2DM incidence were obtained through interviews. Data were analyzed using univariate and bivariate analyses with the Chi-Square test at a 95% confidence level ($\alpha = 0.05$). The results showed a significant relationship between dietary pattern and the incidence of DM ($p = 0.047$), as well as between genetic factors and the incidence of DM ($p < 0.001$). In contrast, no significant relationship was found between nutritional status and the incidence of DM ($p = 0.201$). In conclusion, dietary pattern and genetic factors were significantly associated with the incidence of DM in the working area of Maesan Primary Health Center, whereas nutritional status was not associated with DM incidence.

Keywords: *Diabetes Mellitus, dietary pattern, nutritional status, genetic factors, FFQ*