

ABSTRACT

**THE RELATIONSHIP BETWEEN NUTRITIONAL STATUS AND BLOOD
GLUCOSE LEVEL ON OUTPATIENTS DIABETES MELLITUS TYPE 2
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Introduction: Diabetes Mellitus type 2 (DMT2) is a metabolic disease with hyperglycemia due to the body can't use insulin effectively. DMT2 must be controlled to prevent unwanted complications. Target control of DMT2 is a well controlled blood glucose. One step in achieving this, is to regulate nutritional status. This study aims to determine the relationship of nutritional status and blood glucose level of DMT2 patients. **Material and methods:** This study is a quantitative research of analytic observation with cross-sectional approach. The sample was the outpatient DMT2 at Endocrine Unit RSUD dr Soetomo Surabaya during January-February 2017 by consecutive sampling method. The independent variable was nutritional status and the dependent variable was the fasting blood glucose (FBG). Methods of collecting primary data by measuring body weight and height and secondary data by looking at the results of FBG from the patient's medical records. Collected data was processed by Pearson correlation test using SPSS program. **Results:** The number of DMT2 patients fulfilling the inclusion and exclusion criteria were 65 people. Most of the patients had overweight and obese status over 50 people with an average body mass index (BMI) of $26.06 \pm 4.625 \text{ kg/m}^2$. Also found 40 people had poor blood glucose levels with an average FBG of $142.17 \pm 44.012 \text{ mg/dL}$. Pearson correlation test result showed a significant relationship between BMI and FBG level of DMT2 patients with p value 0,04 ($p < 0,05$) and correlation coefficient value 0,256. **Conclusion:** Nutritional status and blood glucose level positively correlated. Increasing the value of BMI, also increase the level of FBG.

Keyword : diabetes mellitus type 2, nutritional status, body mass index, fasting blood glucose