THE RELATIONSHIP BETWEEN SMOKING HABITS AND COFFE CONSUMPTION WITH BLOOD GLUCOSE LEVELS IN TYPE 2 DIABTES MELLITUS PATIENTS AT POLOWIJEN HEALTH CENTER

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ABSTRACT

Background: Smoking and coffee consumption are common habits that affect glucose metabolism. Nicotine increases insulin resistance, while caffeine reduces insulin sensitivity and elevates blood glucose. **Objective:** This study examined their relationship with fasting blood glucose in Type 2 Diabetes Mellitus patients. **Metods:** A cross-sectional analytic study was conducted on 73 Type 2 Diabetes Mellitus patients at Polowijen Health Center, Malang. Data on smoking and coffee habits were collected through interviews, and fasting blood glucose was measured using spectrophotometry. Statistical analysis used Spearman correlation and Odds Ratio (OR). **Results:** Respondents had a mean age of 59.7 years, with balanced gender distribution. Most reported smoking (56.2%) and coffee consumption (83.6%). The mean fasting blood glucose was 193.1 mg/dL, with 91.8% showing hyperglycemia (≥126 mg/dL). Smoking was significantly associated with elevated glucose (OR = 7.88; r = 0.676; $p < 0.001$), while coffee consumption also showed a significant association (OR = 42.86; r = 0.449; $p < 0.001$). Smokers were nearly eight times more likely to have hyperglycemia, and coffee consumers about 43 times more likely compared to non-consumers. **Conclusion**: Smoking and coffee consumption are significantly related to increased fasting blood glucose in Type 2 Diabetes Mellitus patients. **Suggestion**: Lifestyle education, smoking cessation, and moderate coffee intake are essential for better diabetes management.

Keywords: Smoking, Coffee, Blood Glucose, Type 2 Diabetes Mellitus