

**RELATIONSHIP BETWEEN STRESS LEVELS AND BLOOD SUGAR LEVELS
IN PATIENTS WITH DIABETES MELLITUS AT THE BANYUANYAR HEALTH
CENTER SURAKARTA CITY**

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ABSTRACT

Background: Diabetes mellitus is a chronic metabolic disorder characterized by increased blood sugar levels (hyperglycemia) due to an imbalance in insulin supply. It is estimated that at least 463 million people suffer from diabetes mellitus worldwide in 2019. Meanwhile, the prevalence of diabetes in Central Java reached 2.1%. based on data sources from the Surakarta City Health Office in 2022, diabetes mellitus occupies the second proportion of 16.73%. Puskesmas Banyuanyar is the Puskesmas with the highest diabetes mellitus data with 1003 patients. Banyuanyar Health Center itself has also increased over the past five years, amounting to 8.82%. Increased blood sugar levels can be influenced by several factors, namely lack of exercise, aging process, pregnancy, smoking and stress. When stressed there is also an increase in hormones, namely the hormones adrenaline and cortisol where these hormones increase blood sugar, so this can affect people with diabetes mellitus. **Objective:** Knowing the relationship between stress and blood sugar levels of people with diabetes mellitus at the Banyuanyar Health Center in Surakarta City. **Method:** This type of research is quantitative, with a cross sectional approach. The population was 70 respondents, with total sampling techniques. **Results:** The results showed that there was a relationship between stress levels and blood sugar levels in people with diabetes mellitus at the Banyuanyar Health Center in Surakarta City. **Conclusion:** From statistical test with Spearman-Rho, $p\text{-value} = 0.000 < 0.05$, which means that there is a significant relationship between stress levels and blood sugar levels in patients with diabetes mellitus at the Banyuanyar Health Center Surakarta City.

Keywords: Stress Level, Blood Sugar Level, Diabetes Mellitus