

# **HUBUNGAN KADAR GULA DARAH PUASA TERHADAP *RESTING HEART RATE* PADA PASIEN DIABETES MELITUS 2 PUSKESMAS WARUNG JAMBU**

**Azzahra Roudhotul Jannah**

## **Abstrak**

Hiperglikemia, kondisi patologis utama pada DM, dapat dipengaruhi oleh peningkatan RHR yang menjadi faktor risiko penyakit kardiovaskular. Penelitian menggunakan sampel DM tipe 2 PROLANIS penting untuk diteliti karena PROLANIS sangat efektif terhadap pengendalian kadar GDP. Sebanyak 90 dari 181 pasien yang mengalami DM tipe 2 pada PROLANIS Puskesmas Warung Jambu. Penelitian ini bertujuan untuk mengetahui hubungan kadar gula darah puasa terhadap *Resting Heart Rate* pada pasien PROLANIS Puskesmas Warung Jambu agar dapat mengurangi komplikasi penyakit kardiovaskular dari pasien. Penelitian ini merupakan penelitian observasional analitik dengan pendekatan *cross sectional* pada 34 pasien yang memenuhi kriteria inklusi dan eksklusi melalui teknik *consecutive sampling*. Pengukuran kadar GDP dan RHR dilakukan menggunakan alat glucometer dan tensimeter digital. Analisis data berupa analisis univariat dari masing-masing variabel dalam bentuk frekuensi, persentase, rata-rata, dan standar deviasi dan analisis bivariat menggunakan korelasi spearman. Hasil didapatkan sekitar 35,5% usia responden 61-70 tahun, jenis kelamin perempuan (79,4%), 52,9% DM sejak 1-5 tahun, rata-rata kadar GDP sebesar 179,62 mg/dl, dan rata-rata RHR sebesar 87,32 bpm. Hasil uji bivariat menunjukkan bahwa terdapat hubungan kadar GDP terhadap RHR pada pasien PROLANIS Puskesmas Warung Jambu dengan nilai  $p=0,001$ . Kesimpulan yang didapatkan yaitu semakin tinggi kadar GDP, maka semakin tinggi pula RHR pada pasien DM tipe 2 PROLANIS Puskesmas Warung Jambu sehingga pasien disarankan untuk mengikuti kegiatan PROLANIS dan berhati-hati dalam menjaga kadar GDP untuk meminimalkan risiko komplikasi kardiovaskular.

**Kata Kunci:** Denyut Jantung Istirahat, DM Tipe 2, Gula Darah Puasa, PROLANIS

## **THE CORRELATIVE BETWEEN FASTING BLOOD GLUCOSE AND RESTING HEART RATE IN TYPE 2 DM PATIENTS OF WARUNG JAMBU PUBLIC HEALTH CENTER**

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### **Abstrak**

Hyperglycemia, a main pathological condition in DM, can be influenced by increased RHR, which is a risk factor for cardiovascular disease. Out of 181 type 2 DM patients registered as members of PROLANIS at Warung Jambu Public Health Center, 90 of them are included in the study as it is important in controlling FBG levels. This study aims to determine the relationship between FBG levels and RHR in type 2 DM patients at Warung Jambu Public Health Center. This study is an observational analytical with a cross-sectional approach on 34 type 2 DM PROLANIS using consecutive sampling technique. FBG levels and RHR was using glucometer and digital sphygmomanometer. Univariate analysis consists of frequency, percentage, mean, and standard deviation of the variable, and bivariate analysis using Spearman's correlation. The results showed that approximately 35.5% of the respondents were in the age range of 61-70 years, predominantly female (79.4%), 52.9% had DM for 1-5 years, with an average fasting blood glucose level of 179.62 mg/dl, and an average RHR of 87.32 bpm. The bivariate analysis indicated a significant relationship between fasting blood glucose levels and RHR in PROLANIS patients at Warung Jambu Public Health Center, with a p-value of 0.001. Higher FBG levels were associated with higher RHR in type 2 DM patients registered in PROLANIS at Warung Jambu Public Health Center. Therefore, patients are advised to participate in PROLANIS activities and take caution in maintaining blood glucose levels to minimize the risk of cardiovascular complications.

**Keywords:** Fasting Blood Glucose, PROLANIS, Resting Heart Rate, Type 2 DM