

**Universitas Prima Indonesia PSDKU Pekanbaru
PROGRAM STUDI MAGISTER ILMU KESEHATAN MASYARAKAT
AKK**

**Faradina Mutari
243309811016**

Pengaruh Stres dan Kualitas Tidur terhadap Kadar Kolesterol pada Pasien Penyakit Jantung setelah Dikontrol oleh Usia, Jenis Kelamin, IMT, Status Merokok, dan Penggunaan Statin di RSUD Petala Bumi Pekanbaru

ABSTRAK

Penyakit jantung merupakan salah satu penyebab utama kematian di dunia dan berkaitan erat dengan berbagai faktor biologis, psikologis, dan perilaku. Stres dan kualitas tidur diduga berperan dalam perubahan metabolisme lipid yang dapat memengaruhi kadar kolesterol pada pasien penyakit jantung. Namun, penelitian yang mengintegrasikan stres, kualitas tidur, dan kadar kolesterol secara simultan pada pasien penyakit jantung masih terbatas. Penelitian ini bertujuan untuk menganalisis pengaruh stres dan kualitas tidur terhadap kadar kolesterol pada pasien penyakit jantung setelah dikontrol oleh usia, jenis kelamin, indeks massa tubuh (IMT), status merokok, dan penggunaan statin.

Penelitian ini menggunakan desain kuantitatif analitik dengan pendekatan cross-sectional. Penelitian dilakukan di Poli Jantung RSUD Petala Bumi Pekanbaru pada bulan Maret–Mei 2026. Sampel penelitian berjumlah 172 responden yang dipilih menggunakan teknik consecutive sampling. Data stres diukur menggunakan Perceived Stress Scale (PSS-10), kualitas tidur menggunakan Pittsburgh Sleep Quality Index (PSQI), sedangkan kadar kolesterol diperoleh dari hasil pemeriksaan laboratorium. Analisis data dilakukan menggunakan uji Mann-Whitney, Kruskal-Wallis, korelasi Spearman, dan regresi linier berganda.

Hasil penelitian menunjukkan bahwa sebagian besar responden memiliki tingkat stres sedang (91,3%) dan kualitas tidur buruk (94,8%). Analisis bivariat menunjukkan bahwa stres ($p=0,154$) dan kualitas tidur ($p=0,559$) tidak berhubungan signifikan dengan kadar kolesterol total. Variabel penggunaan statin menunjukkan hubungan yang bermakna secara statistik terhadap kadar kolesterol ($p<0,001$). Analisis multivariat menunjukkan bahwa model regresi bermakna secara statistik ($F=59,828$; $p<0,001$) dengan nilai adjusted R^2 sebesar 0,707. Penggunaan statin merupakan variabel yang paling dominan memengaruhi kadar kolesterol, sedangkan stres dan kualitas tidur tidak menunjukkan pengaruh signifikan setelah dikontrol oleh variabel confounder.

Kesimpulan penelitian ini adalah stres dan kualitas tidur tidak berpengaruh signifikan terhadap kadar kolesterol pada pasien penyakit jantung setelah dikontrol oleh usia, jenis kelamin, IMT, status merokok, dan penggunaan statin. Penggunaan statin menjadi faktor yang paling dominan memengaruhi kadar kolesterol total pada pasien penyakit jantung.

Kata Kunci: stres, kualitas tidur, kadar kolesterol, penyakit jantung, statin

Prima Indonesia University PSDKU Pekanbaru
MASTER OF PUBLIC HEALTH STUDY PROGRAM
AKK

Faradina Mutari
243309811016

The Effect of Stress and Sleep Quality on Cholesterol Levels in Heart Disease Patients after Controlling for Age, Gender, BMI, Smoking Status, and Statin Use.
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ABSTRACT

Heart disease is one of the leading causes of death worldwide and is closely associated with biological, psychological, and behavioral factors. Stress and sleep quality are suspected to play a role in lipid metabolism changes that may affect cholesterol levels in patients with heart disease. However, studies integrating stress, sleep quality, and cholesterol levels simultaneously among heart disease patients remain limited. This study aimed to analyze the effect of stress and sleep quality on cholesterol levels in heart disease patients after controlling for age, gender, body mass index (BMI), smoking status, and statin use.

This study used a quantitative analytic design with a cross-sectional approach. The research was conducted at the Cardiology Outpatient Clinic of RSUD Petala Bumi Pekanbaru from March to May 2026. A total of 172 respondents were selected using consecutive sampling. Stress levels were measured using the Perceived Stress Scale (PSS-10), sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI), and cholesterol levels were obtained from laboratory examination results. Data were analyzed using Mann-Whitney, Kruskal-Wallis, Spearman correlation, and multiple linear regression tests.

The results showed that most respondents experienced moderate stress levels (91.3%) and poor sleep quality (94.8%). Bivariate analysis indicated that stress ($p=0.154$) and sleep quality ($p=0.559$) were not significantly associated with total cholesterol levels. Statin use showed a statistically significant association with cholesterol levels ($p<0.001$). Multivariate analysis demonstrated that the regression model was statistically significant ($F=59.828$; $p<0.001$) with an adjusted R^2 value of 0.707. Statin use was identified as the most dominant factor affecting cholesterol levels, while stress and sleep quality did not show significant effects after controlling for confounding variables.

In conclusion, stress and sleep quality did not significantly affect cholesterol levels in heart disease patients after controlling for age, gender, BMI, smoking status, and statin use. Statin use was the most dominant factor influencing total cholesterol levels among heart disease patients.

Keywords: *stress, sleep quality, cholesterol levels, heart disease, statin use*