

## Hubungan antara Stres dengan Kadar Glukosa Darah pada Karyawan Fakultas Kedokteran Universitas X = The Association between stress and glucose level in Faculty Medicine University X staffs

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### Abstrak

Stres dapat menyebabkan perubahan perilaku individu dan timbulnya gangguan kesehatan yang dapat menurunkan produktivitas kerja. Sebanyak 60% karyawan mengalami penurunan produktivitas kerja yang disebabkan oleh stres. Pengetahuan dan penelitian tentang hubungan stres dengan kadar glukosa darah di Indonesia masih sedikit dilakukan. Tujuan penelitian ini adalah mencari hubungan antara stres dengan peningkatan kadar glukosa darah pada karyawan Fakultas Kedokteran Universitas X.

Penelitian ini menggunakan metode cross-sectional, dengan teknik pengambilan sampel secara consecutive sampling. Sampel penelitian sebanyak 111 yang berasal dari karyawan FKUX. Studi ini menggunakan data primer berupa kadar glukosa darah subjek yang diperiksa langsung oleh peneliti dengan menggunakan glukosameter merk Nesco. Sedangkan, data stres didapatkan dari kuesioner SRQ20. Analisis statistik penelitian ini menggunakan uji Fisher, jika nilai  $p < 0,05$  menunjukkan adanya hubungan antara kedua variabel.

Hasil analisis didapatkan sebanyak 71,4% karyawan yang mengalami gangguan stres memiliki kadar glukosa darah yang meningkat. Selain itu, hasil analisis statistik menunjukkan terdapat hubungan antara stres dengan kadar glukosa darah ( $p = 0,035$ ). Stres fisik maupun psikologis akan menimbulkan reaksi yang sama di dalam tubuh berupa aktivasi fight or flight response, sehingga timbul rangsangan sistem saraf autonomik dan pelepasan berbagai hormon seperti kortisol, epinefrin, glukagon dan hormon pertumbuhan yang mengakibatkan peningkatan glukoneogenesis di hati. Selain itu, efek epinefrin dapat menghambat sekresi insulin menyebabkan peningkatan glukosa darah.

<hr>Stress may lead to changes in individual behaviour and reduce worker`s productivity. As many as 60% of employees decreased work productivity due to stress during work. However, knowledge and study on the relationship between stress and blood glucose levels in Indonesia is still rarely done. The aim of this study was to find the relationship between stress and blood glucose levels in FMUX employees. This study used a cross-sectional, with consecutive sampling technique. As many as 111 staff of FKUX were taken as sample in this study.

This study uses primary data such as blood glucose levels directly examined by researchers using Nesco brand glukosameter. Meanwhile, the stress data obtained from the questionnaires SRQ20. The data were analysed by Fischer test, if the value of  $p < 0,05$ , the study shows significant relationship between variables. There are 71,4% of employees who experience stress disorders have elevated blood glucose level.

Fisher test analysis results obtained Significancy value of 0.035 which states significant relation between stress and blood glucose levels. Stress may lead to activation of the autonomic nervous system and release

hormones such as cortisol, epinephrine, glucagon, and growth hormone which causes an increase in blood glucose level. Furthermore, epinephrine may reduce insulin secretion which increase blood glucose level.