

ABSTRACT

International Diabetes Federation (IDF) predicts that in 2035 there will be 592 million people with diabetes but 175 million of them have not been diagnosed conclusively or are at risk of prediabetes that progressively developing as diabetes mellitus. Diabetes mellitus has an impact on work health and also on decreased work productivity. Prediabetes is a condition in which the blood sugar level is not high enough to be categorized as diabetes mellitus but is close to the borderline number. From the examination of blood sugar levels, it was found that fasting blood sugar was between 100-125 mg /dl and TTGO of 2 hours fasting glucose <140 mg /dl, or plasma glucose after 2 hours of TTGO is 140-199mg /dl and GDP is 100-125 mg /dl, and HbA1C levels is from 5.7-6.4%.

This study aims to analyze the influential factors of physical activity and eating habits as well as other risk factors that affect the incidence of prediabetes in employees of the Batu City Government office. The research design used was cross sectional, and involving 79 respondents. The independent variables of the research were age, gender, family history of disease, physical activity, eating habits, central obesity, and blood pressure. Meanwhile, the dependent variable is prediabetes. Data analysis used multivariate analysis with binary logistic regression test.

The results showed that the age range of respondents who are 26-56 years, more male respondents had prediabetes, namely 6 people (7.6%), and most of respondent family medical history did not have any illness/disease, which were 33 respondents (41.8%). From the multivariate analysis, there were four independent variables that influenced the incidence of prediabetes, namely physical activity ($p = 0.016$; $B = 3.787$), habits of eating unhealthy meal ($p = 0.041$; $B = 2.791$), consumption of energy ($p = 0.023$; $B = 3.902$), and central obesity ($p = 0.033$; $B = 3.338$). Of the four influencing variables, the most influential factor is the one with the highest B value, namely consumption of energy ($B = 3.902$).

Prediabetes and related risk factors require appropriate intervention by changing the old lifestyle to a more active one by doing these activities: exercising regularly, limiting the use of elevators in the office, walking to the office when the house is not too far away, improving diet by consuming more fruits and vegetables, high fiber foods, consumption of foods that produce high energy, such as sweet foods and drinks, fried foods, fast food , and also regularly doing the health check-up.

Keywords: physical activity, eating habits, central obesity, energy consumption, prediabetes

ABSTRAK

Prediksi *International Diabetes Federation* (IDF) pada tahun 2035, penderita diabetes menjadi 592 juta, tetapi 175 juta diantaranya belum terdiagnosis pasti atau berstatus prediabetes yang terancam berkembang progresif menjadi diabetes melitus. Diabetes melitus mempunyai dampak pada kesehatan kerja dan produktivitas kerja yang menurun. Prediabetes adalah suatu kondisi dimana kadar gula darah tidak cukup tinggi untuk dikategorikan sebagai diabetes melitus tetapi sudah mendekati angka bonderline. Dari pemeriksaan kadar gula darah didapatkan gula darah puasa antara 100-125 mg/dl dan TTGO glukosa puasa 2 jam < 140 mg/dl, atau glukosa plasma 2 jam setelah TTGO 140-199mg/dl dan GDP 100-125 mg/dl, dan kadar HbA1C 5,7-6,4%.

Penelitian ini bertujuan menganalisis faktor pengaruh aktivitas fisik dan kebiasaan makan serta faktor risiko lain yang berpengaruh terhadap kejadian prediabetes pada karyawan kantor Pemkot Batu. Desain penelitian *cross sectional* yang melibatkan 79 responden. Variabel independen adalah usia, jenis kelamin, riwayat penyakit keluarga/keturunan, aktivitas fisik, kebiasaan makan, obesitas sentral, dan tekanan darah. Sedangkan variabel dependen adalah prediabetes. Analisa data menggunakan analisis multivariat dengan uji regresi logistik biner.

Hasil penelitian rentang usia responden 26-56 tahun, laki laki lebih banyak berstatus prediabetes yaitu 6 orang (7,6%), riwayat penyakit keluarga responden terbanyak tidak menderita penyakit apapun sebanyak 33 oarang (41,8%). Dari analysis multivariat, empat variabel yang berpengaruh terhadap kejadian prediabetes, yaitu aktivitas fisik ($p=0,016$; $B=3,787$), kebiasaan makan makanan berisiko ($p=0,041$; $B=2,791$), konsumsi kecukupan energi ($p=0,023$; $B=3,902$), dan obesitas sentral ($p=0,033$; $B=3,338$). Faktor yang paling berpengaruh adalah yang memiliki nilai B tertinggi yaitu konsumsi kecukupan energi ($B=3,902$).

Prediabetes dan faktor risiko yang terkait memerlukan intervensi tepat dengan merubah gaya hidup yang lebih aktif dengan cara berolahraga teratur, membatasi penggunaan lift di kantor, berjalan kaki ke kantor bila jarak rumah tidak terlalu jauh , memperbaiki pola makan dengan lebih banyak mengkonsumsi buah, sayur, membatasi konsumsi makanan yang menghasilkan energi yang tinggi misalnya jenis makanan dan minuman manis, jenis makanan gorengan, fast food , melakukan pemeriksaan kesehatan secara berkala dan teratur.

Kata kunci : aktivitas fisik, kebiasaan makan, obesitas sentral, konsumsi energi, prediabetes