

HUBUNGAN ANTARA ASUPAN MAKAN, AKTIVITAS FISIK, DAN OBESITAS SENTRAL TERHADAP KEJADIAN PREDIABETES DI KOTA YOGYAKARTA

Amanda Safiera Ameline¹, Susetyowati², Emy Huriyati³

INTISARI

Latar Belakang: Diabetes Mellitus tipe 2 merupakan salah satu penyakit degeneratif yang prevalensinya terus meningkat baik di negara maju maupun berkembang, termasuk Indonesia. Prediabetes merupakan kondisi yang mendahului terjadinya DM tipe 2 dimana sudah terjadi peningkatan kadar glukosa darah namun belum mencapai kriteria diagnosa DM. Beberapa faktor penyebab prediabetes yang dapat dikendalikan antara lain supan makan, aktivitas fisik, dan obesitas sentral.

Tujuan: Mengetahui hubungan antara asupan makan, aktivitas fisik, dan obesitas sentral terhadap kejadian prediabetes di Kota Yogyakarta.

Metode: Penelitian ini merupakan penelitian *cross-sectional*. Subjek penelitian sebanyak 150 responden (71 laki-laki dan 79 perempuan) yang memenuhi kriteria inklusi–eksklusi, berusia 19–64 tahun dan bertempat tinggal di Kecamatan Umbulharjo, Kota Yogyakarta. Pengambilan sampel menggunakan teknik *proportional stratified random sampling*. Data asupan makan diperoleh menggunakan formulir *Food Recall 2x24 jam* yang kemudian diolah menggunakan program *Nutrisurvey*. Data aktivitas fisik diperoleh menggunakan formulir *GPAQ* versi 2. Dan data obesitas sentral menggunakan nilai lingkaran pinggang. Subjek diklasifikasikan menjadi prediabetes apabila kadar glukosa darah puasa 100 – 125 mg/dl dan normal apabila <100 mg/dl.

Hasil: Hasil Uji *Independent-Sample t Test*, Uji *Mann-Whitney*, maupun Uji *One-Way ANOVA* menunjukkan tidak terdapat perbedaan rerata asupan makan, aktivitas fisik, dan lingkaran pinggang antara kelompok prediabetes dan non-prediabetes ($p>0,05$). Sementara hasil analisis bivariat menggunakan Uji *chi-square* menunjukkan tidak terdapat hubungan antara asupan makan (asupan energi, protein, lemak, lemak jenuh, karbohidrat, gula sederhana, serat), dan porsi konsumsi buah dan sayur (per hari) terhadap kejadian prediabetes (Glukosa Darah Puasa Terganggu/ GDPT) di Kota Yogyakarta ($p>0,05$). Tidak terdapat hubungan antara aktivitas fisik ($p>0,05$; RP=1,11; CI 95%: 0,59-2,12) dan obesitas sentral ($p>0,05$; RP=1,51; CI 95%: 0,79-2,88) terhadap kejadian prediabetes (Glukosa Darah Puasa Terganggu/ GDPT) di Kota Yogyakarta.

Kesimpulan: Asupan makan, aktivitas fisik, dan obesitas sentral bukanlah faktor resiko kejadian prediabetes (GDPT) dalam penelitian ini.

Kata Kunci: Asupan Makan (Energi, Protein, Lemak, Lemak Jenuh, Karbohidrat, Gula Sederhana, Serat), Aktivitas Fisik, Obesitas Sentral, Prediabetes, Glukosa Darah Puasa Terganggu (GDPT).

¹ Mahasiswa Program Studi Gizi Kesehatan, Fakultas Kedokteran, Universitas Gadjah Mada, Jalan Farmako, Sekip Utara Yogyakarta 55281, e-mail: amandafiera@gmail.com

² Dosen Program Studi Gizi Kesehatan, Fakultas Kedokteran, Universitas Gadjah Mada, Jalan Farmako, Sekip Utara Yogyakarta 55281, e-mail: susetyowati@ugm.ac.id

³ Dosen Program Studi Gizi Kesehatan, Fakultas Kedokteran, Universitas Gadjah Mada, Jalan Farmako, Sekip Utara Yogyakarta 55281, e-mail: emyhuriyati@ugm.ac.id

ASSOCIATION BETWEEN DIETARY INTAKE, PHYSICAL ACTIVITY, AND CENTRAL OBESITY WITH PREDIABETES IN YOGYAKARTA CITY

Amanda Safiera Ameline¹, Susetyowati², Emy Huriyati³

ABSTRACT

Background: Diabetes Mellitus Type 2 is the one of various degenerative diseases that the prevalence is increasing both in industrial and developing countries, included Indonesia. Prediabetes is a early state of development DM type 2 which blood glucose levels have already increased but not yet reached the diagnostic criteria of DM. Some of the controlled risk factors of prediabetes are dietary intake, physical activity, and central obesity.

Objective: This study aimed to determine the association between dietary intake, physical activity, and central obesity with prediabetes in Yogyakarta City.

Method: A cross-sectional study was conducted in Umbulharjo Subdistrict of Yogyakarta City, involved 150 adults (71 men and 79 women) who meet the inclusion and exclusion criteria, aged 19 – 64 years old. The subject were selected using proportional stratified random sampling. Dietary intake assessed using Food Recall 2 x 24h which is processed with Nutrisurvey. Physical activity assessed using GPAQ ver.2, and central obesity assessed using waist circumference. The subject was classified as prediabetes if fasting glucose was 100 – 125 mg/dl and normal if fasting glucose was <100 mg/dl.

Result: The results of Independent-Sample t-Test, Mann-Whitney Test, and One-Way ANOVA showed that there are no significant differences in dietary intake, physical activity, and waist circumference in both groups ($p>0,05$). Bivariate analysis with chi-square showed there were no significant association between dietary intake (energy, protein, fat, saturated fat, carbohydrate, simple sugar, and dietary fiber) and portion of fruits and vegetables consumption (per day) with prediabetes (Impaired Fasting Glucose/IFG) in Yogyakarta City ($p>0,05$). There were no significant association between physical activity ($p>0,05$; $RP=1,11$; $CI\ 95\%: 0,59-2,12$) and central obesity ($p>0,05$; $RP=1,51$; $CI\ 95\%: 0,79-2,88$) with prediabetes (IFG) in Yogyakarta City.

Conclusion: Dietary Intake (Energy, Protein, Fat, Saturated Fat, Carbohydrate, Simple Sugar, Dietary Fiber), Physical Activity, and Central Obesity statistically were not risk factors prediabetes (IFG) in this study.

Keywords : Dietary Intake (Energy, Protein, Fat, Saturated Fat, Carbohydrate, Simple Sugar, Dietary Fiber), Physical Activity, Central Obesity, Prediabetes, Impaired Fasting Glucose (IFG)

¹ Student of Nutrition and Health, Faculty of Medicine, Gadjah Mada University, Farmako Street, North Sekip Yogyakarta 55281, e-mail: amandafiera@gmail.com

² Lecturer of Nutrition and Health, Faculty of Medicine, Gadjah Mada University, Farmako Street, North Sekip Yogyakarta 55281, e-mail: susetyowati@ugm.ac.id

³ Lecturer of Nutrition and Health, Faculty of Medicine, Gadjah Mada University, Farmako Street, North Sekip Yogyakarta 55281, e-mail: emyhuriyati@ugm.ac.id