

Pengaruh diet seimbang dan sustainable berbasis aplikasi smartphone terhadap marker the homeostasis model assessment of insulin resistance perempuan obesitas di perkotaan = Effect of balanced and sustainable diet using smartphone application on the homeostasis model assessment of insulin resistance among obese women in urban areas

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Abstrak

Obesitas menjadi masalah besar dewasa ini terkait dengan lebih dari 3 juta kematian terjadi akibat komplikasinya. Diet seimbang dengan restriksi kalori, sebagai manajemen obesitas, perlu mempertimbangkan produksi makanan sustainable terkait isu perubahan lingkungan, ketahanan pangan, dan keanekaragaman hayati. Aplikasi seluler berpeluang menjadi strategi baru untuk meningkatkan efektivitas dan keberhasilan manajemen obesitas. Penelitian ini bertujuan menilai efek dari diet seimbang dan sustainable berbasis aplikasi dibandingkan dengan diet seimbang berbasis aplikasi terhadap resistensi insulin. Uji klinis acak tersamar ganda dilakukan terhadap 56 wanita obesitas usia 19 ndash;59 tahun dengan indeks massa tubuh ≥ 25 kg/m² yang bekerja atau belajar atau tinggal di Jakarta Pusat dan/atau Kota Depok. Subjek dibagi secara randomisasi berstrata berdasarkan kelompok usia [0.05] dan perubahan asupan lemak [-5.8 23.9 vs -6.4 22 , p >0.05] antar kelompok. Meskipun ada pengurangan nilai HOMA-IR pada kelompok intervensi, perbedaan rerata perubahan HOMA-IR antar kelompok tidak berbeda bermakna setelah dilakukan penyesuaian dengan Indeks Massa Tubuh [-0.87 1.27 vs -0.29 1.21 , p >0.05].

Kesimpulan : Intervensi diet seimbang dan sustainable berbasis aplikasi selama 8 minggu tidak mengurangi nilai HOMA-IR dibandingkan dengan diet seimbang berbasis aplikasi. Penelitian lebih lanjut diharapkan dapat dilakukan dengan periode yang lebih lama atau lebih banyak subjek dalam menerapkan diet yang seimbang dan sustainable.

Obesity is a major problem today related to more than 3 million deaths because of its complications. A balanced diet with caloric restriction, is known as obesity management, requires a novel ways of producing nutritious foods in a sustainable manner because of the issues of environment changes, food security, and biodiversity. Mobile application is a new strategy to improve the effectiveness and success of obesity management. We examine the effect of a balanced and sustainable dietary mobile application compared to a balance diet application on the change of insulin resistance as a common attribute for obesity and type 2 diabetes. A double blind randomized clinical trial was conducted involving 56 obese women aged 19 59 years with body mass index ≥ 25 kg m² working or studying or residing in Central Jakarta and or Depok City. Subjects were selected randomly and stratified based on age group 0,05 and fat intake changes 5.8 23.9 vs 6.4 22 , p 0,05 were observed between groups. Although there was a significant reduction of HOMA IR within intervention group, the difference in the mean reduction of HOMA IR after intervention 0.87 1.27 vs 0.29 1.21 , p 0.05 between group was not significantly different after adjusted by Body Mass Index. Conclusion An 8 week of balanced and sustainable dietary application intervention did not reduce elevated HOMA IR level compared with a balanced diet application. Further research is expected to be performed with longer periode or more subject in applying a balanced and sustainable diet.