

Effects of time restricted feeding on metabolism syndrome severity in the obese adults – A pilot randomized control trial

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ABSTRACT

Introduction: Central obesity is a component of metabolic syndrome (MetS) which is also made up of dyslipidaemia, impaired glucose tolerance, and hypertension. Time Restricted Feeding (TRF) is a form of daily intermittent fasting, which involves an extended physiological overnight fast of 12-16 hours. Short studies (8-12 weeks) in the research laboratory have shown that TRF is effective in weight reduction. However, randomized controlled trial in a real-world setting is limited. This study aims to investigate the effect of 16:8 time restricted feeding (16:8 TRF) on MetS severity among obese adults. **Methods:** This is an open-label, randomized controlled trial with a 74 subjects sample size. Subjects were randomized into either the control group, which practices Quarter-Quarter Half (QQH) dietary plan or intervention group, which practices 16:8 TRF as an adjunct to QQH dietary plan. Subjects were followed up at 3 months and 6 months. Metabolic scores and weight differences between the two groups were analysed using univariate analysis and repeated measure ANOVA. **Results:** Two formulas were used to calculate the subject's MetS (age-based and gender based). Univariate analysis (Student's t-test) showed no difference between the two groups at all three timepoints (baseline, 3-month and 6-month). Using repeated measure ANOVA, there was also no significant difference between the two groups for both age-based MetS ($p=0.427$) and gender-based MetS ($p=0.899$). **Conclusion:** 16:8 TRF did not improve MetS score in the obese adults.