

Thesis Title	The Association Between Total Physical Activity, Screen Time and Hs-CRP in Overweight and Obese Adults
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ABSTRACT

Nowadays, Thai population is starting to shift to a more sedentary lifestyle, while the prevalence of obesity, another serious health problem, had been increasing worldwide. This leads to an increased risk of non-communicable diseases, including cardiovascular diseases. Inflammation of adipose tissue can cause chronic low-grade systemic inflammation, which can be detected by an increase in high sensitivity C-reactive protein (hs-CRP), one of the biomarkers of cardiovascular disease risk prediction. According to previous studies, Hs-CRP is significantly higher in obese individuals, while lower physical activity is associated with higher levels of hs-CRP, however, the results may be mediated by the level of adiposity. Screen time, one of the measures for sedentary behavior, is also studied in this research.

Objectives: This study aimed to study the association between total physical activity, screen time and hs-CRP in overweight and obese adults.

Material and Methods: This research is a cross-sectional study conducted in 21 healthy normal weight, overweight and obese Thai adults aged between 20 and 40 years old. Subjects' body weight and height were measured, intravenous blood sample (5 mL)

were collected after overnight fasting, and then interviewed to answer the GPAQ questionnaire and screen time questionnaire.

Results: Using Pearson correlation coefficient, total physical activity and screen time had no significant correlation with hs-CRP ($P>0.05$), while there was a significant, moderate positive correlation between BMI and hs-CRP ($r=0.462$, $P=0.035$).

Conclusion: Total physical activity and screen time had no significant correlation with hs-CRP in overweight and obese adults. However, BMI had a significant moderate negative correlation with hs-CRP.

Keywords: Hs-CRP, Physical Activity, Screen Time, Overweight, Obesity

