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INTERRELATIONSHIPS AMONG SEDENTARY BEHAVIOUR, SHORT SLEEP, AND THE METABOLIC SYNDROME IN ADULTSD Saleh, I Janssen. *Queen's University*

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Introduction Sedentary behaviour is gaining attention as an important cardiometabolic risk factor. Studies of sedentary behavior and cardiometabolic risk have not considered sleep duration, although there is evidence that sleep duration may be related to both sedentary behaviour and cardiometabolic risk.

Objective The purpose of this study is to determine if sedentary behaviour is related to the metabolic syndrome (MetS) while controlling for sleep duration.

Methods This cross-sectional study is based on the 2003–2006 National Health and Nutrition Examination Survey. A sample of 1371 adults over the age of 20 were studied. Average daily sedentary time and sleep duration were determined via 7-day accelerometry. Screen time was determined via questionnaire. The MetS was determined using standard criteria. Analysis of variance was used to examine relationships among sedentary time and screen time with sleep duration. Multiple logistic regression was used to examine associations between total sedentary time, screen time, and sleep duration with the MetS after controlling for several covariates.

Results Sedentary time and screen time did not vary across the sleep quartiles ($p=0.08$ and $p=0.87$, respectively). Participants in the highest quartile of sedentary time were significantly more likely to have the MetS than participants in the lowest quartile (odds ratio=1.60, 95% CI:1.05–2.45). The odds of the MetS was higher

in participants in the highest screen time tertile as compared to the lowest tertile (odds ratio=1.67, 95% CI:1.13–2.48). Sleep duration was not independently related to the MetS.

Conclusion Highly sedentary individuals and individuals with a high screen time are more likely to have the MetS.