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WHERE TO SIT? ASSOCIATIONS OF DIFFERENT TYPES OF SITTING WITH CARDIOMETABOLIC RISK FACTORS

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Objectives

To study the associations of five types of sitting and total amount of sitting with cardiometabolic risk factors in a large representative sample.

Methods

The sample comprised 2561 men and 2822 women, aged 25-74 years, who participated in the National FINRISK 2012 Health Study including a health examination and questionnaires. Sitting was self-reported in daily hours and minutes (min/d): during work day in the office or similar, at home watching TV, at home in front of computer, in a vehicle, and elsewhere. Total sitting was a sum of these five types. Cardiometabolic risk factors were body mass index (BMI), waist circumference (WC), serum total cholesterol (T-CHOL) and HDL cholesterol (HDL-C), glycated hemoglobin (HbA1c) and systolic and diastolic blood pressure (BP). Linear regression analysis, adjusted for age, region, education, smoking status, leisure time physical activity, perceived health status, and BMI (except BMI/WC models) was used. All types of sitting were included in the same model and total sitting in a separate model.

Results

Men and women reported sitting 142/155 min/d at office, 136/129 min/d for TV viewing, 62/49 min/d for computer, 58/31 min/d in vehicle, 28/28 min/d elsewhere, totaling to 425/391 min/d. In multivariate models, TV viewing associated with WC in both genders, with BMI and T-CHOL in women, and with HDL-C in men. Computer time associated with BMI, CW and T-CHOL in women. Vehicle time associated with WC and BMI in both genders, and with T-CHOL and diastolic BP in women. Office time associated with HDL-C and HbA1c in men and with diastolic BP in women. Sitting elsewhere associated inversely with BMI in women and with HDL-C in men and women.

Conclusions

TV viewing and sitting in a vehicle appeared the most detrimental to cardiometabolic health, while other types of sitting and total sitting showed less systematic associations. Cardiometabolic health outcomes may vary by type of sitting and gender.