TYPE A FACTORS AS PREDICTORS OF PHYSICAL ACTIVITY IN YOUNG FINNS – A 18-YEAR FOLLOW-UP STUDY
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INTRODUCTION
Research in Type A behavior pattern (TABP) has turned towards a consideration of the different components of Type A behavior that may work in opposite directions in predicting cardiovascular disease (CVD) and its risk factors. On the other hand, there is evidence for a direct relationship between a certain kind of TABP and physical activity. Although the associations between TABP and sporting activities in adults have been examined in previous research, few studies concern about the association of the components of Type A behavior with physical activity.

PURPOSE
The purpose of the present study was:
1. to determine whether the different components of TABP in adolescence predicts physical activity in adulthood
2. to determine whether the different components of TABP is associated with changes in physical activity over a 18-year period.

METHODS AND SUBJECTS
As a part of the Cardiovascular Risk in Young Finns Study, we assessed levels of and changes in physical activity in a 18-year follow-up from adolescence (12 to 21 years) to adulthood (30 to 39 years) in a cohort of 1,112 subjects using a questionnaire completed in connection with a medical examination. TABP measured by the Hunter Wolf A-B Rating Scale (Ravaja et al. 1996) was categorized into four dimensions: Aggression, Leadership, Responsibility and Eagerness-Energy.

RESULTS
Leadership in adolescence predicted high physical activity in adulthood both in men (F(2, 506) = 8.92, p < .001) and in women (F(2, 600) = 7.63, p < .001). In both sexes, only Leadership was significantly different between the changes of physical activity groups (F(1, 506) = 5.82, p < .001 for males, F(1, 600) = 5.45, p < .001 for females). There were no associations between other subcomponents of TABP and changes of physical activity. The multiple logistic regression analysis showed that in males, being persistently active from adolescence to adulthood the probability for the high Leadership in adulthood was high (OR = 6.98, CI = 1.86 to 26.20) as compared to those who were persistently inactive after adjusting for age and education. In females, the odds for high levels of Leadership were significantly higher in persistently active (OR = 5.75, CI = 2.04 to 16.30), increasingly active (OR = 4.84, CI = 1.67 to 14.0) and decreasingly active (OR = 3.35, CI = 1.16 to 9.69), respectively, as compared to the reference group. After adjusting for the confounding variables an even stronger association emerged.

Discussion / Conclusions
Our findings show that one component of Type A behavior, Leadership, was associated with physical activity among adolescents and adults in both sexes. In addition, Leadership in adolescence predicted significantly physical activity in adulthood. The Leadership component in Type A behavior is an important determinant of long-term changes in physical activity in a longitudinal perspective.

Key words: Type A behavior physical activity follow-up