

# Associations between the duration of active commuting to school and academic achievement in rural Chilean adolescents

García-Hermoso A.

Saavedra J.M.

Olloquequi J.

Ramírez-Vélez R.

**Background:** Habitual active commuting to school may be positively associated with academic achievement. The aim of this study was to examine the relationship between duration of walking or otherwise actively commuting to school and academic achievement. **Methods:** This cross-sectional study included 389 adolescents from seven rural schools (12-13 years). Mode and duration of active commuting to school (use of active means such as walking or biking to and from school) and screen time were self-reported. Academic achievement was determined by the outcome in basic grades (language and mathematics). **Results:** Active commuting to school was not associated with higher scores in any grades after adjustment for potential confounders. No evidence was found of interactions between gender and academic achievement, but there was interaction with duration of walking (<30 min, 30-60 min, and >60 min). Adjusted binary logistic regression analysis suggested that adolescents who spent between 30 and 60 min actively commuting were more likely to obtain high academic achievement (language and mathematics). **Conclusions:** Thirty to 60 min of ACS may have a positive influence on academic achievement in adolescents, so, it is necessary to make recommendations for the children to walk from and/or to school. This could help society to recognize the relevance of physical activity to health as well as to academic performance. © The Author(s). 2017.

Active travel

Physical activity

School performance

Walking

academic achievement

adolescent

child

Chilean

cross-sectional study

female

gender

human

language

major clinical study

male

mathematics

travel

walking

academic success

adolescent behavior

child behavior

Chile

cycling

procedures

psychology

school

self report

statistics and numerical data

student

traffic and transport

Academic Success

Adolescent

Adolescent Behavior

Bicycling

Child

Child Behavior

Chile

Cross-Sectional Studies

Female

Humans

Male

Schools

Self Report

Students

Transportation

Walking