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## Physical Activity and Screen Time in Adolescents and Their Nominated Friends

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## Physical Activity and Screen Time in Adolescents and Their Nominated Friends

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**Background:** The social transmission of obesity has been reported in adolescent social networks. However, the behavioral antecedents to obesity (physical activity [PA], screen time, and diet) are the factors that would actually be transmitted through these networks. To date, little is known about the social influences affecting an individual adolescent's PA and screen time behaviors.

**Purpose:** To determine the associations between an adolescent's PA and screen time and his/her nominated friends' PA and screen time.

**Methods:** Data were obtained from EAT 2010 (Eating and Activity among Teens), a large cross-sectional study (n=2,126) conducted in 20 middle schools and high schools in Minneapolis/St. Paul, Minnesota, USA during the 2009-2010 academic year. Each participant (Ego) nominated up to six friends (Alters) from a school roster and data from those friends was also obtained as part of the school-based data collection procedures. PA and screen time were assessed with previously used and validated questionnaires. Generalized estimating equation models, stratified by gender, were used to assess associations between adolescents' PA and screen time and their friends' PA and screen time.

**Results:** Females' PA was associated with their male and female friends' PA, including their female best friends (all  $p < 0.05$ ). Males' PA was associated with their female friends' PA ( $p < 0.03$ ). Females' screen time was associated with their male and female friends' screen time ( $p \leq 0.03$ ), but not with their best friends. Males' screen time was only associated with their female friends' screen time ( $p = 0.04$ ).

**Conclusions:** The associations between individual and friend PA and screen time, especially in females, indicate a need to consider these social relationships when investigating weight-related behaviors in adolescents. Longitudinal data using validated measures of PA and screen time, and analyzed using sophisticated modeling techniques are needed to better understand social influences on adolescent weight-related behaviors and inform future intervention efforts.