

Children's Screen Viewing is Related to Psychological Difficulties

Irrespective of Physical Activity Angie S. Page, PhD, Ashley R. Cooper, PhD, Pippa Griew, MSc, Russell Jago, PhD, 2010, *Pediatrics*

Children who spent more than 2 hours per day watching television or using a computer were at increased risk of high levels of psychological difficulties and this risk increased if the children also failed to meet physical activity guidelines. A recent study with 4- to 12-year-old Scottish children found that children with the highest scores for screen entertainment and the lowest levels of physical activity had the highest levels of psychological difficulties.⁵

Greater television or computer use was related to greater psychological distress for 10- to 11-year-old children, irrespective of objectively measured physical activity or sedentary time. Limiting computer use and television viewing may be important for optimal well-being for young people.

Sedentary time was measured with accelerometers (ActiGraph GT1M [ActiGraph, Pensacola, FL]).¹⁸ Children were instructed to wear the accelerometer on a belt around their waist during waking hours for 7 consecutive days, and the instruments were programmed to record data every 10 seconds. Data were collapsed into 1-minute epochs, and sedentary time was defined as any minute in which <100 counts were recorded.^{8,19}

SEDENTARY BEHAVIORS

Children were asked to report, through single items on a computerized questionnaire, “How many hours a day do you usually spend watching TV?” and “How many hours a day do you usually spend playing on a computer (not for homework)?” Responses ranged from 0 to ≥5 hours per day.

PHYSICAL ACTIVITY

Moderate and Vigorous Physical Activity (MVPA) was used in analyses because it has been related consistently to psychological well-being.²⁰ For consistency with other related studies, MVPA was defined as any minute in which ≥2000 accelerometer counts were recorded.^{8,21}

PSYCHOLOGICAL DIFFICULTIES

Psychological difficulties were assessed by using the self-report Strengths and Difficulties Questionnaire (SDQ),²² one of the most widely used inventories of young people's psychological well-being.²³ Participants responded to 25 items on a 3-point scale (scored from 0 to 2), from which 20 items were summed to create a total difficulty score (range: 0–40). On the basis of this score, categories were created to represent low (scores of 0–14), borderline (scores of 15–19), and high (scores of 20–40) levels of psychological difficulties.

To interpret data in the context of current public health guidelines, participants were grouped according to whether they met or exceeded screen entertainment guidelines of ≤ 2 hours per day^{28,29} and/or physical activity guidelines of ≥ 60 minutes of MVPA per day.

DISCUSSION

This study found that greater television and computer use was related to greater psychological difficulties, independent of gender, age, level of deprivation, pubertal status, and objectively measured physical activity and sedentary time. In addition, children who reported >2 hours of daily computer or television use but engaged in <60 minutes MVPA per day were at increased risk for psychological difficulties. This is consistent with other studies that demonstrated an enhanced negative effect for children with both high screen-viewing levels and low physical activity levels.^{3,5}

The full article is available on the American Academy of Pediatrics website. You can access a pdf of the article:

<http://pediatrics.aappublications.org/content/early/2010/10/11/peds.2010-1154.full.pdf+html>