

# Genetics linked to children viewing high amounts of violent media

February 19 2014

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The lifelong debate of nature versus nurture continues—this time in what your children watch. A recent paper published in the *Journal of Communication* found that a specific variation of the serotonin-transporter gene was linked to children who engaged in increased viewing of violent TV and playing of violent video games.

Sanne Nikkelen, Helen Vossen, and Patti Valkenburg of the University of Amsterdam's School of Communication Research, in collaboration with researchers at the Erasmus University Medical Centre in Rotterdam, analyzed survey data of 1,612 parents of Dutch children ages 5-9. The parents noted how much violent TV programming their children viewed, as well as how often they played [violent video games](#). DNA samples collected at the children's birth were then analyzed to determine a certain gene variant. The researchers found that children that had the specific variant of the serotonin-transporter gene on average consumed more [violent media](#) and displayed more ADHD-related behaviors. However, these links are subtle and more factors can influence these behaviors in children.

Earlier studies have shown that overall amount of media use is partly heritable. These studies, however, did not examine the use of specific media content and did not examine specific gene variants, but only looked at heritability. This study is the first to specifically examine violent media content and to examine a specific gene variant. There have been earlier studies looking at whether violent media use is related to ADHD-related behaviors, but these have found mixed results.

"Our results indicate that children's violent media use is partly influenced by genetic factors. This could mean that children with this gene variant are more likely to seek out stimulating activities, such as violent television viewing and video game playing," said Nikkelen. "It is important to study the relationship between media use and ADHD-related behaviors because children who show increased ADHD-related behaviors often face peer and academic difficulties and are at increased risk for substance abuse. Examining factors that may contribute to the development of these behaviors is essential."

**More information:** "Media Violence and Children's ADHD-Related Behaviors: A Genetic Susceptibility Perspective" by Sanne Nikkelen, Helen Vossen, Patti Valkenburg, Fleur Velders, Dafna Windhorst, Vincent Jaddoe, Albert Hofman, Frank Verhulst, & Henning Tiemeier, *Journal of Communication*, Volume 64 No. 1, pgs. 42-60, 2014 [DOI: 10.1111/jcom.12073](https://doi.org/10.1111/jcom.12073)

Provided by International Communication Association

Citation: Genetics linked to children viewing high amounts of violent media (2014, February 19) retrieved 20 September 2024 from

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