

No simple explanation for why adolescents take risks

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Conventional wisdom holds that adolescents are susceptible to drug use and other risk-taking behavior. However, a one-size-fits-all approach to curbing these behaviors likely will be unsuccessful, according to research to be presented Monday, May 3 at the Pediatric Academic Societies (PAS) annual meeting in Vancouver, British Columbia, Canada.

Studies have suggested that increased risk-taking in adolescence may be due to late maturation of brain functions known as executive cognitive functions, which control impulsivity. One of these functions, called [working memory](#), does not fully mature until the third decade of life.

A collaborative investigative team, led by Daniel Romer, PhD, from the Annenberg Public Policy Center, and Hallam Hurt, MD, from the Children's Hospital of Philadelphia, aimed to track the development of risk-taking behavior and executive cognitive functions in 387 youths of mixed race, ethnicity and socioeconomic status in the Philadelphia area. They assessed working memory, two types of impulsivity (sensation seeking and acting without thinking) and risk behaviors such as fighting, gambling and alcohol use over four years starting when the youths were 10 to 12 years of age.

As expected, results showed that youths who scored high on measures of impulsivity engaged in [risky behaviors](#) at a younger age. However, not all of these youths had weaknesses in working memory. Those with stronger working memory ability exhibited more sensation-seeking behavior, while those with poor working memory scored higher on measures of

acting without thinking.

The results contradict the assumption that all adolescent risk-taking is simply the result of weak executive cognitive function, Dr. Romer explained. The results also indicate that different types of interventions will be needed.

"Our findings clearly suggest that explanations for why adolescents take risks are not simple," Dr. Romer said. "Many adolescents have the capacity to control their risk-taking, and we will need to find ways for them to channel sensation-seeking drives toward safer activities."

Provided by American Academy of Pediatrics

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