

PUBLICATION SOURCE:

Archives of General Psychiatry, March 2008

TITLE:

Girls' hyperactivity and physical aggression during childhood and adjustment problems in early adulthood: A 15-year longitudinal study

THE FINDINGS:

Females (N = 881) from a population-based sample from Canada (Québec) were followed between 6 and 21 years of age to understand the relationship between trajectories of hyperactivity and physical aggression during childhood and adjustment problems in early adulthood.

Females on high trajectories of hyperactivity alone as well as those on high trajectories of hyperactivity and physical aggression were at highest risk to show adjustment problems in adulthood, in particular nicotine use problems, mutual psychological aggression between partners, and low educational attainment. However, only those females on high trajectories of hyperactivity and physical aggression reported frequent perpetration of physical and psychological aggression towards partner as well as early pregnancy, and welfare assistance.

IMPLICATIONS:

- a) The study suggests that girls with chronic hyperactivity and physical aggression in childhood should be a primary target for intensive prevention programs because they are more likely to exhibit serious adjustment problems later in life. Interventions targeting elementary school aged girls with elevated levels of hyperactivity and physical aggression could reduce adjustment problems across the life course.
- b) In addition, interventions should take into account the presence or absence of high physical aggression – hyperactive girls who are also physically aggressive might need specific interventions to help them learn alternatives to physical aggression.
- c) Prevention and intervention strategies targeting only physical aggression can result in a significant under identification of at-risk girls. In fact, our results indicate that by targeting hyperactive elementary girls there is a high likelihood that the vast majority of high aggressive girls would be included.

SUPPORTING DETAILS:

Trajectory: A trajectory refers to the behavioral development of a group of individuals that differs from the behavioral development of other groups of individuals: 1 in 10 girls (10.4%) were on a high trajectory of hyperactivity without being on a high trajectory of physical aggression; 8.5% of the girls were on a high trajectory of both hyperactivity and physical aggression; less than 1 in 200 girls (0.4%) followed high trajectory of physical aggression without being on a high trajectory of hyperactivity, indicating that physically aggressive girls are almost always hyperactive; the frequency of hyperactivity and physical aggression declined from 6 to 12 years of age for the majority of girls.

Hyperactivity: Hyperactivity was assessed by teachers between 6 and 12 years of age (restless, runs about, or jumps up and down, does not keep still; squirmy, fidgety child).

Physical aggression: Physical aggression was assessed by teachers between 6 and 2 years of age (fights with other children; bullies or intimidates other children; kicks, bites, or hits other children).

Adjustment problems in adulthood: We used age 21 self-reports of substance use problems, criminal behaviors, aggression in intimate relationships, early pregnancy, educational attainment, and welfare assistance.

Control variable: The analyses were controlled for family risk indices (i.e., a composite index including family structure, parents' levels of education, parents' occupational status, and parents' age at the birth of the first child).

LIMITATIONS OF THE STUDY:

- The trajectories of childhood hyperactivity and physical aggression were limited to the period between 6 to 12 years of age. Studies on girls' development at an early stage, i.e., before kindergarten, are needed given evidence that these behaviors start early in the life-course.
- Because not all hyperactive and physically aggressive girls grow up to have serious adjustment problems, future studies will need to understand what factors might prevent the development of adjustment problems for this particular group.
- The study focused on hyperactivity and physical aggression in females. Risk factors more specific to girls, such as social and relational aggression, also need to be considered in future investigations.

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Carnegie Mellon University (Pennsylvania, USA)

France:

Inserm (France)

PRIMARY FUNDING AGENCIES:

Conseil québécois de la recherche sociale (CQRS)

Social Sciences and Humanities Research Council of Canada (SSHRC)

Québec Fonds pour la formation des chercheurs et l'aide à la recherche (FCAR)

Canadian Institutes of Health Research (NHRDP/CIHR)

U.S. National Science Foundation

U.S. National Institute of Mental Health

National Consortium on Violence Research

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