
Childhood hyperactivity, physical aggression and criminality: a 19-year prospective population-based study.

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BACKGROUND:

Research shows that children with Attention Deficit/Hyperactivity Disorder are at elevated risk of criminality. However, several issues still need to be addressed in order to verify whether hyperactivity in itself plays a role in the prediction of criminality. In particular, co-occurrence with other behaviors as well as the internal heterogeneity in ADHD symptoms (hyperactivity and inattention) should be taken into account. The aim of this study was to assess the unique and interactive contributions of hyperactivity to the development of criminality, whilst considering inattention, physical aggression and family adversity.

METHODOLOGY/PRINCIPAL FINDINGS:

We monitored the development of a population-based sample of kindergarten children (N=2,741). Hyperactivity, inattention, and physical aggression were assessed annually between the ages of 6 and 12 years by mothers and teachers. Information on the presence, the age at first charge and the type of criminal charge was obtained from official records when the participants were aged 25 years. We used survival analysis models to predict the development of criminality in adolescence and adulthood: high childhood hyperactivity was highly predictive when bivariate analyses were used; however, with multivariate analyses, high hyperactivity was only marginally significant (Hazard Ratio: 1.38; 95% CI: 0.94-2.02). Sensitivity analyses revealed that hyperactivity was not a consistent predictor. High physical aggression was strongly predictive (Hazard Ratio: 3.44; 95% CI: 2.43-4.87) and its role was consistent in sensitivity analyses and for different types of crime. Inattention was not predictive of later criminality.

CONCLUSIONS/SIGNIFICANCE:

Although the contribution of childhood hyperactivity to criminality may be detected in large samples using multi-informant longitudinal designs, our results show that it is not a strong predictor of later criminality. Crime prevention should instead target children with the highest levels of childhood physical aggression and family adversity.