What predictors matter: Risk factors for late adolescent outcomes.

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Abstract

OBJECTIVES:
A life course approach and linked Manitoba data from birth to age 18 were used to facilitate comparisons of two important outcomes: high school graduation and Attention-Deficit/Hyperactivity Disorder (ADHD). With a common set of variables, we sought to answer the following questions: Do the measures predicting high school graduation differ from those that predict ADHD? Which factors are most important? How well do the models fit each outcome?

METHODS:
Administrative data from the Population Health Research Data Repository at the Manitoba Centre for Health Policy were used to conduct one of the strongest observational designs: multilevel modelling of large population (n = 62,739) and sibling (n = 29,444) samples. Variables included are neighbourhood characteristics, measures of family stability, and mental and physical health conditions in childhood and adolescence.

RESULTS:
The adverse childhood experiences important for each outcome differ. While family instability and economic adversity more strongly affect failing to graduate from high school, adverse health events in childhood and early adolescence have a greater effect on late adolescent ADHD. The variables included in the model provided excellent accuracy and discrimination.

CONCLUSION:
These results offer insights on the role of several family and social variables and can serve as the basis for reliable, valid prediction tools that can identify high-risk individuals. Applying such a tool at the population level would provide insight into the future burden of these outcomes in an entire region or nation and further quantify the burden of risk in the population.