Long-term effects of stimulant treatment on ADHD symptoms, social-emotional functioning, and cognition.


Abstract

BACKGROUND:
Methodological and ethical constraints have hampered studies into long-term lasting outcomes of stimulant treatment in individuals with attention-deficit/hyperactivity disorder (ADHD). Lasting effects may be beneficial (i.e. improved functioning even when treatment is temporarily ceased) or detrimental (i.e. worse functioning while off medication), but both hypotheses currently lack empirical support. Here we investigate whether stimulant treatment history predicts long-term development of ADHD symptoms, social-emotional functioning or cognition, measured after medication wash-out.

METHODS:
ADHD symptoms, social-emotional functioning and cognitive test performance were measured twice, 6 years apart, in two ADHD groups (stimulant-treated versus not stimulant-treated between baseline and follow-up). Groups were closely matched on baseline clinical and demographic variables (n = 148, 58% male, age = 11.1). A matched healthy control group was included for reference.

RESULTS:
All but two outcome measures (emotional problems and prosocial behaviour) improved between baseline and follow-up. Improvement over time in the stimulant-treated group did not differ from improvement in the not stimulant-treated group on any outcome measure.

CONCLUSIONS:
Stimulant treatment is not associated with the long-term developmental course of ADHD symptoms, social-emotional functioning, motor control, timing or verbal working memory. Adolescence is characterised by clinical improvement regardless of stimulant treatment during that time. These findings are an important source to inform the scientific and public debate.