Overlapping and disease specific trait, response, and reflection impulsivity in adolescents with first-episode schizophrenia spectrum disorders or attention-deficit/hyperactivity disorder.

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Abstract

BACKGROUND:
Schizophrenia and attention-deficit/hyperactivity disorder (ADHD) are developmental disorders with shared clinical characteristics such as cognitive impairments and impulsivity. Impulsivity is a core feature of ADHD and an important factor in aggression, violence, and substance use in schizophrenia. Based on the hypothesis that schizophrenia and ADHD represent a continuum of neurodevelopmental impairments, the aim was to identify overlapping and disease specific forms of impulsivity.

METHODS:
Adolescents between 12 and 17 years of age were assessed with the Schedule for Affective Disorders and Schizophrenia for School-aged Children - Present and Lifetime Version. Subjects with early-onset, first-episode schizophrenia spectrum disorders (EOS) (N = 29) or ADHD (N = 29) and healthy controls (N = 45) were compared on two performance measures (Information Sampling Task, Stop Signal Task) and a subjective personality trait measure of impulsivity (Barratt Impulsiveness Scale, Version 11 (BIS-11)).

RESULTS:
Significantly increased reflection impulsivity was observed in ADHD but not in the EOS group. No significant response inhibition deficits (stop signal reaction time) were found in the two clinical groups. The ADHD and the EOS group showed significantly increased motor, attentional, and non-planning subtraits of impulsivity.

CONCLUSIONS:
Impaired pre-decisional information gathering appeared to be specific for ADHD while the information gathering was not significantly reduced in subjects with EOS. Neither the ADHD nor EOS group showed impaired response inhibition but shared increased personality subtraits of attentional, non-planning, and motor impulsivity although the latter was significantly more pronounced in ADHD. These increased subtraits of impulsivity may reflect diagnostic non-specific neurodevelopmental impairments in ADHD and EOS in adolescence.