Title: Clinical Correlates of Sluggish Cognitive Tempo in Adolescents with Autism Spectrum Disorder

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Introduction: Adolescents with autism spectrum disorder (ASD) frequently experience social-communication difficulties, executive functioning deficits, and anxiety and depressive (i.e., internalizing) symptoms. These difficulties are similar to the correlates of sluggish cognitive tempo (SCT). SCT, a commonly co-occurring yet distinct correlate of attention-deficit/hyperactivity disorder (ADHD), is characterized by behaviors such as excessive daydreaming, mental confusion, staring blankly, being lost in thoughts, slow thinking and responding, and losing one’s train of thought. Although SCT symptoms seem to be characteristic of individuals with ASD (e.g., “seems to be in a world of his or her own,” “gets lost in his or her own thoughts”), very few studies have investigated SCT in ASD. In the current study, using a sample of well-phenotyped, adolescents with ASD without intellectual disability, we examined whether SCT symptoms and ADHD symptoms were differentially associated with ASD symptomatology, daily life executive function ratings, internalizing symptoms, and externalizing symptoms.

Method: Families with adolescents ages 13 to 18 (16.28±1.32 years) years were identified from the standard clinical flow at an outpatient clinic specializing in re-evaluation of ASD (i.e., clinical data repository). Participants who contributed data for the current analyses were 51 predominantly white male adolescents with ASD without intellectual disability (i.e., IQ>70; 98.41±16.45).

Autism without intellectual disability diagnosis was confirmed with the Autism Diagnostic Observation Schedule, 2nd Edition (ADOS-2) and IQ testing. Parents completed ratings including the internalizing and externalizing, DSM-oriented attention-deficit/hyperactivity problems, and SCT scales of the Child Behavior Checklist (CBCL), the Behavior Rating Inventory of Executive Function (BRIEF), and the Social Communication Questionnaire (SCQ) Lifetime Form.

Result: Regression analyses controlling for age and IQ showed that SCT symptoms, but not ADHD symptoms, were associated with increased autism symptomatology and internalizing symptoms. ADHD symptoms, but not SCT symptoms, were associated with increased externalizing behaviors and behavior regulation deficits. Both SCT and ADHD were independently associated with increased metacognitive deficits.

Discussion: Consistent with the one previous study investigating SCT in ASD, we found that (1) rates of clinically elevated SCT symptoms were twice as high as rates of clinically elevated ADHD symptoms, (2) SCT but not ADHD symptoms were associated with increased ASD symptomatology, and (3) SCT and ADHD symptoms were differentially related to other co-occurring mental health dimensions and daily life executive functioning difficulties. Assessing for SCT when diagnosing ASD may inform diagnostic and case conceptualization, and may furthermore inform intervention. Replication is warranted with a larger sample and more extensive SCT measure.

References/Citations: