

Do we need an irritable subtype of ADHD? Replication and extension of a promising temperament profile approach to ADHD subtyping

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Abstract

Attention deficit hyperactivity disorder (ADHD) is emblematic of unresolved heterogeneity in psychiatric disorders—the variation in biological, clinical, and psychological correlates that impedes progress on etiology. One approach to this problem is to characterize subgroups using measures rooted in biological or psychological theory, consistent with the National Institute of Mental Health's research domain criteria initiative. Within ADHD, a promising application involves using emotion trait profiles that can address the role of irritability as a complicating feature for ADHD. Here, a new sample of 186 children with ADHD was evaluated using community detection analysis to determine if meaningful subprofiles existed and if they replicated those previously identified. The new sample and a prior sample were pooled for evaluation of (a) method dependence, (b) longitudinal assessment of the stability of classifications, and (c) clinical prediction 2 years later. Three temperament profiles were confirmed within the ADHD group: one with normative emotional functioning ("mild"), one with high surgency ("surgent"), and one with high negative affect ("irritable"). Profiles were similar across statistical clustering approaches. The irritable group had the highest external validity: It was moderately stable over time and it enhanced prospective prediction of clinical outcomes beyond standard baseline indicators. The irritable group was not reducible to ADHD + oppositional defiant disorder, ADHD + disruptive mood dysregulation disorder, or other patterns of comorbidity. Among the negative affect domains studied, trait proneness to anger uniquely contributed to clinical prediction. Results extend our understanding of chronic irritability in psychiatric disorders and provide prospects for a fresh approach to assessing ADHD heterogeneity focused on the distinction between ADHD with and without anger/irritability.