

Individual differences in tendencies to attention-deficit/hyperactivity disorder and emotionality: empirical evidence in young healthy adults from Germany and China

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Abstract

Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder that is characterized by inattention, hyperactivity, and impulsivity but also by negative emotionality. The aim of the present study was to investigate whether subclinical ADHD tendencies are associated with negative emotionality in healthy adult samples. The present study is of special interest since it investigated negative emotionality with a questionnaire anchored in Neuroscience Theory-the Affective Neuroscience Personality Scales (ANPS). Furthermore, through the investigation of samples in two countries, namely Germany and China, the study aims to replicate the results across different cultures. German ($n = 377$; age: $M = 23.25$, $SD = 8.47$; 117 males) and Chinese ($n = 389$; age: $M = 20.74$, $SD = 2.47$; 279 males) subjects completed ANPS (primary emotional traits) and ASRS (ADHD tendencies) questionnaires in an online survey. Principal component analysis of the ANPS revealed one factor for negative emotionality and one factor for positive emotionality. Partial correlations between ANPS and ASRS (controlled for age) were conducted separately for nation and gender. The same correlation patterns between ADHD tendencies and negative emotionality could be found in male and female German/Chinese participants (range $r = .189$ to $r = .352$). Higher negative emotionality was always significantly associated with more inattentive, hyperactive/impulsive, or combined tendencies. However, significant negative correlations between ADHD tendencies and positive emotionality could only be observed in Chinese males (range $r = -.264$ to $r = -.296$). The results are in line with former findings in children and show that also in healthy adults, associations between negative emotionality and ADHD tendencies are robustly visible. The results were independent of the cultural background, indicating a general association between ADHD tendencies and negative emotionality, even in healthy adults.