Sleep in adults with ADHD: Systematic review and meta-analysis of subjective and objective studies.

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Abstract

Sleep alterations associated with adulthood ADHD are poorly understood. Here, we conducted the first meta-analysis of sleep studies in adults with ADHD. Based on a pre-registered protocol (PROSPERO-CRD42017065407), we searched Pubmed, Ovid and Web of Knowledge databases through August 3rd, 2017, with no language or publication type restrictions, and contacted study authors for unpublished data/information. From a pool of 8,812 references, we retained 13 studies. Random-effects models were performed and study quality was rated using the Newcastle-Ottawa Scale. Compared to adults without ADHD, those with ADHD significantly differed in seven out of nine subjective parameters (Standardized Mean Difference, SMD, ranging from 0.56 to 1.55) and two out of five actigraphic parameters [SMD (95% CI): sleep onset latency: 0.80 (0.46-1.14); sleep efficiency: -0.68 (-1.03, -0.34)]. No significant differences were detected for polysomnographic parameters. We conclude that, whereas subjectively reported sleep problems are significantly associated with ADHD in adults and should be systematically screened during the clinical interview, additional research is needed to understand if they are underpinned by objective sleep alterations.