Abstract

Depression is prevalent worldwide while sleep disturbances have long been recognized as a feature of depression. The objective of this meta-analysis was to compile an up-to-date evaluation on sleep disturbances, as measured by actigraphy, in participants with major depressive disorder (MDD) when compared to healthy controls. We systematically searched six key electronic databases up until October 2017. Three researchers independently reviewed the titles and abstracts to select potentially eligible studies for data extraction. Selection results are compared and jointly discussed to arrive at a mutually agreed selection of studies. Twenty case-control and intervention studies were included. Meta-analyses of sleep efficiency (SE), sleep onset latency (SOL) and number of awakenings (NOA) between participants with MDD and healthy controls were performed. Results showed that participants with MDD had significantly lower SE, longer SOL and larger NOA compared to healthy controls with effect sizes of 0.6, 0.2 and 0.8 respectively. In conclusion, sleep disturbances have been identified as a core feature as well as risk factor of depressive disorders. With the advancement in technology, actigraphy becomes a potentially valuable source of information in monitoring individual's sleep disturbances in order to highlight any risk of developing depression as well as monitor the seriousness of depression and treatment effectiveness.