Sleep Deprivation, Stimulant Medications, and Cognition provides a review, synthesis and analysis of the scientific literature concerning stimulant medications and neurobehavioral performance, with an emphasis on critically evaluating the practical utility of these agents for maintaining cognitive performance and alertness in sleep-deprived (but otherwise healthy) individuals. The book explores the nature of sleep loss-induced cognitive deficits, neurophysiologic basis of these deficits, relative efficacy and limitations of various interventions (including non-pharmacological), and implications for applying these interventions in operational environments (commercial and military).