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Sommario/riassunto	Neuropsychiatric disorders, covering both psychotic and depressive disorders, but also autism and attention-deficit hyperactivity disorder (ADHD), are characterized by abnormal behavior and brain structure. Accumulating evidence suggests that altered neurochemistry plays a role in these disorders and may have a causal relationship with the observed behavioral and structural abnormalities. To improve the understanding of neurochemical anomalies and (patho)physiological changes in psychiatric conditions, in vivo assessment of the affected tissue, the brain, is wanted and needed. Magnetic resonance spectroscopy (MRS) is a non-invasive technique which allows in vivo assessment of the molecular composition of brain tissues and identification of metabolites involved in physiological and pathological processes, which is otherwise virtually impossible. Only in the last decade with the development of high field MR methodologies, MRS has become sensitive enough for broader use in clinical studies. The implications are many, but proper guidance and elucidation of the pros and cons for the specific methods is needed to optimally exploit the potential. This Research Topic updates the reader on the possibilities and pitfalls of MRS today and highlights methodologies and applications for the future.