Michael Binder

Highland Park Hospital, USA

The Multi-Circuit Neuronal Hyperexcitability Hypothesis of Psychiatric Disorders

Short of a clear understanding of how psychiatric symptoms are produced, the various cognitive, emotional, and behavioral patterns that characterize psychiatric disorders continue to be grouped into syndromes and treated accordingly. However, an emerging hypothesis contends that psychiatric symptoms are driven by pathological hyperactivity in symptom- related circuits in the brain. According to the Multi-Circuit Neuronal Hyperexcitability (MCNH) Hypothesis of Psychiatric Disorders, persistent firing in anxiety circuits causes persistent feelings of anxiety; persistent firing in depressive circuits causes persistent feelings of depression; persistent firing in cognitive circuits causes ruminative and obsessive thoughts; etc... This pathological circuit-specific hyperactivity is believed to be the consequence of a genetically-transmitted failure of the neurological system to self-regulate when perturbed by a psychological, emotional, or biological stressor. The failure of neurons to shut off is also believed to drive a chronic hyper-activation of the autonomic nervous system, the hypothalamic-pituitary system, the immunologic system, the metabolic system, and various other systems of the body, thus explaining the link between upper-end-of-normal resting vital signs and the development of any of a wide range of chronic diseases, such as anxiety disorders, mood disorders, diabetes, high blood pressure, heart disease, autoimmune diseases, and cancer. This presentation will discuss the enormous implications that this has for the treatment and prevention of nearly all illnesses, both psychiatric and medical. It will also discuss the source of the abnormality and a simple, objective means by which persons at risk can be identified. In an era of smartphones, wearable devices, and a growing public desire to prevent rather than react to illness, the ability to use resting vital signs to identify the fundamental driver of both mental and physical illness could usher in history's greatest campaign in the fight against sickness and disease.

Speaker Biography

Michael Binder is a board-certified adult and adolescent psychiatrist with nearly 30 years of experience treating a wide range of psychiatric disorders. He is also a neuroscience researcher with a focus on identifying the mechanisms by which psychiatric symptoms develop and the means by which psychotherapy and pharmacotherapy combine to help alleviate symptoms. In 2019 he published the Multi-Circuit Neuronal Hyperexcitability (MCNH) Hypothesis of Psychiatric Disorders, the first hypothesis to explain, both neuropsychiatrically and psychophysiologically, the means by which psychiatric symptoms develop and, based on the anatomy and physiology of the cognitive-emotional system, the most rapid and effective ways to relieve them. Somewhat by serendipity, the MCNH hypothesis also led to the discovery that an inherent hyperexcitability of the neurological system is the fundamental driver of virtually every mental and physical illness that can be triggered or exacerbated by stress.

e: mbinder@drmichaelbinder.com