

Overview of Psychiatric Disorders

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Psychiatric disorders such as depression, anxiety and schizophrenia are common and result in significant morbidity and mortality as well as financial costs to society. Despite major advances in the neurosciences and genetics, the etiology of these disorders are still unknown. Diagnosis is currently based on clinical symptoms and presentation limiting the ability to do meaningful molecular subtyping as has been done in cancer. While treatments are available for these disorders, they are of limited efficacy and can have significant side effects, limiting their compliance. The lack of an understanding of the underlying mechanisms of these disorders also makes the development of specific and targeted treatments difficult. Stigma also remains a major issue resulting in individuals delaying or not seeking treatment. While animal models have found some utility in elucidating some neural mechanisms, they do not express the full human clinical phenotype. This points to the importance of studying humans with the disorder. Magnetic resonance has an important role to play in advancing our knowledge of brain function to elucidate the pathophysiology of these disorders. Techniques allowing the examination of brain connectivity should prove fruitful as the scientific focus has turned into how brain circuitry is altered in these disorders.