Assessing the Impact of Imaging Studies in Psychotic Disorders and Schizophrenia: Clinical Research, Translational Efforts and Ethical Issues Involved

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Abstract

Schizophrenia and other psychotic disorders have a lifetime prevalence of 0.4 to 1 percent in the general population1. Psychotic disorders are characterized by a range of severely debilitating symptoms, including hallucinations, delusions, and social withdrawal2.

Neuroscientific research into the neurobiology of psychosis and schizophrenia has been performed for decades3, though the increased availability of neuroimaging techniques, such as structural (MRI) and functional Magnetic Resonance Imaging (fMRI), has contributed to its widespread implementation in recent years. Insights from imaging studies are shedding light on a wide range of neurobiological domains: neuroanatomical – including brain structure and volumes – correlates of psychosis and schizophrenia; neurophysiological correlates of psychotic experiences, including neurotransmitter dysregulation and abnormal brain areas activation; and neurocognitive abnormalities that predate psychopathology4. By investigating brain structure, function and physiology, imaging studies have the potential to improve diagnosis, risk assessment, and to help develop novel treatments for psychosis and early-onset schizophrenia in young and at risk populations. Even though little is known about the potential clinical utility of the above research findings, promising attempts in the direction of clinical translation are currently underway5.

In this presentation, I will introduce some relevant findings into the neurobiology of psychotic disorders, as well as current translational efforts. Then, I will outline a number of ethical, legal and social issues that arise at the intersection of mental health research and psychiatric care6. These include, for instance, return of results and management of incidental findings, clinical and research populations' vulnerability, data management, risks of stigmatization, labelling and potential over-diagnosis. Particularly, risks related to research governance will be described as overlapping with ethical issues traditionally found in psychiatry and neuroscience, such as stigma, impact on agency and identity, and potential neuro-essentialism. The attempt is to propose an integrated ethics approach, which builds upon findings in several areas of ethics research.

References

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