

The Behavioural Dimension of Brain Disorders — an Area for Psychiatry?

Psychiatry is a branch of medicine with a relatively short history. Although mental illness has probably existed throughout the history of mankind, it has received little attention from the medical perspective. Major psychoses have been considered as either spiritual or functional until recently. The functional or organic dichotomy has been the official watershed dividing the disciplines of Neurology and Psychiatry.

While Neurology follows the basic medical approach, Psychiatry takes a much broader, and perhaps more diffuse, perspective. During the past few decades, there has been a quantum leap in the volume of basic neuroscientific research. A much better understanding of the neural mechanisms underlying most, if not all, psychiatric disorders has led to a revolutionary change in the concept of mental disorders. Most functional or psychogenic problems have now been found to have an 'organic' aetiology. Functional psychiatric disorders are much better perceived as medical disorders leading to disturbances in brain function. Clinical manifestations are disturbances of the integration between mood, perception, and thought processes. The old distinction between diseases as either neurological or psychiatric faces challenges to its validity. It would be over-simplistic to assume that brain disorders will manifest either along the neurological or psychiatric dimension, and be managed with a single approach.

In this issue, the significance of a combined neuro-psychiatric approach to the assessment and management of brain disorders is highlighted. The article on depressive disorders in Parkinson's disease (PD) underscores the prevalent psychiatric co-morbidity in this classical neurological disorder.¹ Discovery of degeneration of the dopaminergic system in this disorder led to the development of an associated treatment. It is well-recognised that PD is readily amenable to pharmacological interventions that bolster dopaminergic transmission. Nevertheless, the focusing of attention on the motor symptoms of PD is associated with a neglect of other important determinants of quality of life, such as depressive disorders and other psychopathology. The report on mitochondrial encephalopathy, lactic acidosis and stroke-like syndrome (MELAS) provides an excellent example of the complex neuropsychiatric manifestations of a rare metabolic brain disease.² In MELAS, a combination of neurological and psychiatric symptomatology, and use of sophisticated neuroimaging and laboratory technology are required to make the diagnosis.

It is perhaps meaningless to argue about the importance of paying dual attention to the neurological and psychiatric aspects of brain disorders. A more intriguing question may be the need for a division between Psychiatry and Neurology, or more specifically, the distinction between Behavioural

Neurology and Neuropsychiatry. It has been suggested, at least in some centres, that a team of clinical neuroscientists with special neurological and psychiatric training should be developed to provide future medical services. To put this into perspective, it is important to examine the core competencies of Psychiatry in Medicine. Psychiatry is a branch of Medicine and psychiatrists are medically trained specialists. The training provides understanding about disease mechanisms using a scientific approach. On the other hand, psychiatrists are equipped with special skills enabling a holistic assessment and evaluation of human behaviours. Psychiatrists apply skills and techniques to evaluate abnormal behaviours manifesting from the interactions between brain dysfunction and environmental modulators. The skills needed to integrate human behaviours with brain dysfunctions should be specific techniques developed in the realm of Psychiatry. For most brain disorders, advances in neuroscience have greatly improved our understanding about the molecular mechanisms and physiology. There is, however, a wide gap between knowledge about basic neuroscience and its link to human behaviours. Beyond inherent biological mechanisms, there is increasing evidence that external environmental stimulation plays a key role in modulating brain function and human behaviours.^{3,4} For example, environmental enrichment has been shown to improve cognitive function in older persons with or without dementia.

Psychiatrists, members of a medical specialty with unique skills enabling the management of behavioural and psychological disturbances, should grasp the opportunity to reaffirm our role, providing an indispensable form of medical practice.

References

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Prof Linda CW Lam

Department of Psychiatry
The Chinese University of Hong Kong, Shatin
Hong Kong
China