



Guest Lecturer

Youth Neuropsychiatry as a new clinical and research paradigm: implications for psychopathology and values-based practice

Michael Wong | Hong Kong, China

This lecture explores through a detailed case study, some of the implications of the model of Youth Neuropsychiatry (YN) formulated and practiced at the University of Hong Kong, for psychopathology and values-based practice.

Youth (15–24 years of age) is the predominant onset period for mental illness, with 75% of mental and substance use disorders emerging before the age of 25 years. There are dramatic physical and behavioral changes during this critical period. The transition from childhood to adulthood, especially the critical period of adolescence (10–19 years of age), involves a profound reorganization of both architecture and functionality of large-scale brain networks as revealed by longitudinal brain imaging.

Youth Neuropsychiatry (YN) focuses on various illness conditions encountered during adolescence and early adulthood from a neurodevelopmental perspective of genetic vulnerability, environmental stress, brain plasticity and sensitive periods. YN researches on complex interplay of these factors identified by *basic clinical* and *population* neurosciences. One key observation is the *highly replicated* pattern of *typical age of onset* for different classes of mental disorders. This suggests that these *epidemiological patterns* might be a result of periods of development when certain processes are highly plastic and more sensitive to environmental input (i.e. *sensitive periods*). One way to reveal *mechanisms* associated with the characteristic forms of vulnerability during each life phase is to understand the *particular adaptive goals* of each stage of development. While neurodevelopment during youth is a *period of vulnerability* for the development of major mental health conditions, the actual transition from mental health to illness is highly influenced by *social and cultural contexts*. The way these contexts interact with individual differences (such as genetic variation) to generate or moderate psychopathology is complex.

The Youth Neuropsychiatry Program at the University of Hong Kong has been developed to address youth mental health issues as *disorders of distributed interconnected brain networks* that have an impact on *social relationship* and *environmental/ecological adaptation*, and not just focusing on clinical presentations at the *interface* between psychiatry, neurology and general medicine that results from localized brain lesions or identifiable laboratory findings.

In this lecture, I indicate three key implications of the Program for psychopathology and values-based practice: 1) how recent advances in neuropsychiatry shed new light on brain-mind-ecology relationship, 2) how psychopathology can be formulated as disorders of environmental/ecological adaptation and not “nothing but brain” disorder, and 3) how YN provides a paradigm to explore how social and cultural values can impact on



neurodevelopment and youth mental health and illness. These arguments are illustrated with a case study of internet gaming in a youth.