

# Neuropsychiatry

**Niruj Agrawal** explains why neuropsychiatry is intellectually stimulating and rewarding and why it may develop faster than most medical disciplines

Doctors often think of neuropsychiatry as an exciting new discipline; it may be exciting, but it is far from new. In the 18th and 19th centuries most eminent clinicians and researchers working in the field of neurosciences were in fact neuropsychiatrists. They were working with disorders of the brain, which included both neurological and psychiatric disorders. The 20th century, however, saw a gradual separation of these two fields. The focus of psychiatry shifted gradually from structural neuropathology to psychoanalysis and then to community and social psychiatry.<sup>1</sup>

## Artificial boundaries

During the past few decades, the advent of newer pharmacological treatments and advances in fields such as neuroimaging, genetics, and molecular biology have resulted in a growing recognition of brain pathology as the basis for psychiatric illnesses. At the same time, people have begun to address properly the psychological problems that can accompany neurological illnesses. All this has shown how closely interwoven neurology and psychiatry really are and that any boundaries between the two are largely artificial.

## What is neuropsychiatry?

Fundamental to any definition of neuropsychiatry is the inseparability of mind and body. It is an integrative and collaborative field, not a specialist category that recognises only circumscribed features of specific brain disease.<sup>2</sup> So the focus of neuropsychiatry is all the brain symptoms (neurological and psychiatric) that patients present with.

However, the emphasis is on the psychological features associated with a neurological condition rather than pure neurological presentations. Neuropsychiatry also focuses on the patients who fall between the boundary of neurology and psychiatry. Overall, neuropsychiatry attempts to bridge the theoretical and clinical schisms between neurology and psychiatry, working in close collaboration with all fields related to neurosciences. It is a dynamic clinical field with active academic interest.

## An umbrella term

Neuropsychiatry is sometimes seen as an

umbrella term for a number of closely related fields that are slightly different in focus and scope (box 1). Biological psychiatry is an academic field involved in research related to understanding the biological basis of various psychiatric conditions. Cognitive neuroscience entails developing cognitive models for various psychiatric symptoms and conditions and then relating them to brain function. Behavioural neurology is a relatively new but rapidly developing field of neurology, which attempts to find a neurological explanation for behavioural disturbances. Organic psychiatry is another umbrella term for neuropsychiatry related fields.

### Box 1: Related fields

- Biological psychiatry
- Cognitive neurosciences
- Behavioural neurology
- Organic psychiatry

## Psychiatry and neurology: the interface

Patients with psychiatric conditions often present to neurologists with neurological symptoms (box 2). Neurological illnesses can also manifest as psychiatric symptoms. Box 3 highlights this complex and intriguing

### Box 2: Neurological conditions with a psychiatric presentation

- Degenerative disorder—for example, dementia
- Head injury
- Stroke
- Epilepsy and non-epileptic fits
- Movement disorders—for example, Parkinson's disease
- Intracranial tumours
- Intracranial infections
- Nutritional, toxic, or endocrine disorders

interface that neuropsychiatrists deal with in day to day clinical practice.

Too often these neuropsychiatric conditions are under-recognised and left untreated leading to distress, poor quality of life, and dissatisfaction with services. Box 4 lists some benefits of neuropsychiatry to patients, carers, and staff in neurosciences settings.

Many well recognised neurological conditions have a large psychological component,

### Box 3: Psychiatry and neurology—the interface

- Psychiatric consequences of neurological disorders
  - Organic psychiatric disorders with established brain pathology
  - Psychological reaction to neurological disease
- Neurological presentation of psychiatric disorders
  - Somatoform or associative disorders
  - Factitious disorder
- Psychological factors affecting physical condition
  - Chronic pain, neurodisability
- Psychiatric and neurological conditions occurring together by chance

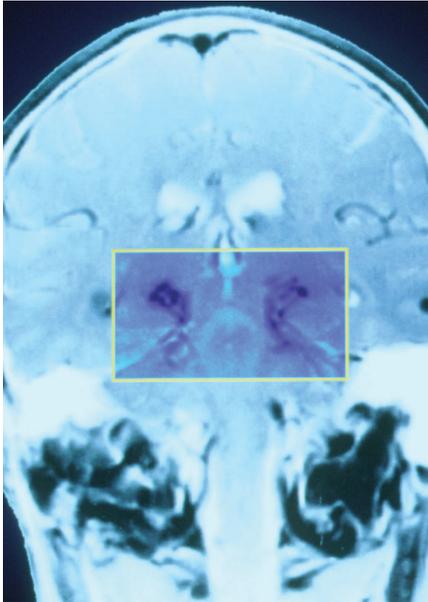
### Box 4: Benefits of neuropsychiatry

- Comprehensive neurological and psychological care of patients
- Reduced morbidity and fewer unnecessary investigations
- Fewer unnecessary admissions and shorter stays
- Decreased psychological distress
- Better quality of life for patients and carers
- Improved patient, carer, and staff satisfaction

which is often not the focus of treatment. This results in years of misery for patients. I have illustrated this with the example of Parkinson's disease.

## Organisation of neuropsychiatry services

Neuropsychiatry services in the United Kingdom evolved at a few regional and national centres such as the National Hospital for Neurology and Neurosurgery, London, and the Institute of Psychiatry, London. There has been some expansion of services, but they are limited to regional centres and teaching hospitals. This means that the patients who need such a service are either denied help for years or they are expected to travel long distances to the regional or national centres. There is a growing feeling that neuropsychiatry should be recognised and developed in the same way that liaison psychiatry has been. This will need sustained investment and expansion of services.



A coloured MRI scan of a coronal section through the brain of a person with Parkinson's disease

### Who should train in neuropsychiatry?

All trainees in neurology and psychiatry would probably benefit from some exposure to neuropsychiatry. This may entail at least six months' to one year's experience during their basic training or higher training. However, trainees who want to pursue neuropsychiatry as a career will require a longer period of training.

### Start early

I would argue that medical students would benefit from some time in neuropsychiatry too. There is a healthy trend in several medical schools in the United Kingdom and United States to combine, or at least better coordinate, the undergraduate medical training in neurology and psychiatry within a neuroscience module. Some exposure to neuropsychiatry during the proposed extended foundation course for preregistration house officers in the United Kingdom may also be helpful for those who want to explore a career in disciplines related to neuroscience.

### Training requirements and opportunities

The training requirement for entering higher training in neuropsychiatry in the United Kingdom is a minimum of two and a half years of basic training in psychiatry, including experience in subspecialties such as general adult psychiatry, old age psychiatry, psychotherapy, child psychiatry, and liaison psychiatry. Any applicant for higher psychiatric training should have membership of the Royal College of Psychiatrists (MRCPsych). Some experience in medicine and neurology is desirable, as is member-

ship of the Royal College of Physicians (MRCP)—but none of these is essential.

### No dedicated training programme

There is no separate neuropsychiatry training programme or certificate of the completion of specialist training (CCST) at present. Currently, trainees must apply for higher specialist training in general psychiatry at a centre which offers a training placement in neuropsychiatry. The Royal College of Psychiatrists (UK) requires one year specialist registrar training in neuropsychiatry out of three years as a minimum experience. Another year's experience in liaison psychiatry may be desirable but is not necessary. Other academic qualifications or research degrees may also count towards the experience, especially if they are related to neuropsychiatry. An appreciable number of trainees hoping to pursue neuropsychiatry as a career do some research in related areas.

An increasing number of general trainees in psychiatry and neurology spend some time in neuropsychiatry after getting their membership even if they do not want to pursue it as a career. Specialist registrars in psychiatry can spend two sessions a week of their flexible special interest time gaining some experience in neuropsychiatry and related disciplines. Specialist registrars in neurology can negotiate similar opportunities at centres that offer training in neuropsychiatry.



Michael J Fox and Muhammad Ali have Parkinson's disease

### Courses

Well taught courses in neuropsychiatry are few and far between. Several regional centres organise local lectures and case conferences, which are often a good introduction to neuropsychiatry. The Maudsley Hospital has developed a novel, self-paced, modular learning programme in neuropsychiatry. These seven modules, which can be purchased, include a workbook and videos. Birmingham

University offers an MSc course or diploma in clinical neuropsychiatry.

### Could I be a neuropsychiatrist?

The neuropsychiatrist needs some of the skills of the neurologist, the psychiatrist, and the neuropsychologist. From psychiatry, neuropsychiatry borrows an excellent descriptive tradition, interview methods, patient focus, and the ability to deal with ambiguity and communication skills.<sup>3</sup> Neurology brings in a strong scientific tradition, attention to detail, and clamour for demonstration of facts. All these are mixed with the highly developed assessment skills of the neuropsychologist. But that's not all. The neuropsychiatrist also needs to be something of a neuroradiologist, neurophysiologist, and neuropharmacologist as well.

Neuropsychiatry often entails liaison and collaboration with a number of neuroscience disciplines and requires basic knowledge of these, especially knowledge and skills related to neurology and psychiatry. For example, a neuropsychiatrist should be able to order and interpret various investigations such as imaging, neurophysiology, and neuropsychology. Some understanding of the principles of rehabilitation may also be needed. This broad bio-psycho-social focus, range of illness presentations, and an armamentarium of available treatments make neuropsychiatry an exciting speciality to work in.

### Future

It's becoming clear that the old boundaries between neurology and psychiatry are artificial and often unhelpful. Neuroscience discoveries in the next few decades, along with the need for conceptual integrity, will bring these two disciplines closer—and patient groups are likely to push for it too. This is an intellectually stimulating and challenging field, which will develop fast—possibly faster than many other medical disciplines. We are currently witnessing a renaissance in neuropsychiatry. Do you want to be part of it?

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### Useful organisations and websites

- British Neuropsychiatry Association—<http://freespace.virgin.net/bnpsa.website>
- Special Interest Group in Neuropsychiatry (SIGN), Royal College of Psychiatrists—[www.rcpsych.ac.uk/college/sig/neuro](http://www.rcpsych.ac.uk/college/sig/neuro)
- Institute of Neurology—[www.ion.ucl.ac.uk](http://www.ion.ucl.ac.uk)
- Neuroscience on the internet—[www.neuroguide.com](http://www.neuroguide.com)