What is a Neuropsychiatrist?

Essentially, for the first half of the 20th century, psychiatry was divided into two basic camps. There were those that looked upon mental illnesses in a reductionist fashion, seeing these illnesses as part of the medical illness spectrum, and practiced in a medically oriented fashion (unfortunately with little success using modalities such as insulin shock and ice water baths). Others were an outgrowth of the psychoanalytic movement focusing primarily on the many variations of psychotherapy including psychoanalysis and insight oriented psychotherapy. Sigmund Freud himself, though being the pioneer of psychoanalysis and a prime mover in the segment of psychiatry that focuses on the psychotherapies was himself a neurologist.

Since the 1950s with the advent of the first antidepressants and the common use of antipsychotics such as chlorpromazine, psychiatry as a specialty took a turn towards a more medical orientation combined with the psychotherapies. As the somatic therapies (medications) grew and multiplied (not only in class and efficacy), there was needed from every psychiatrist a firm knowledge in general medicine. The time of training for psychiatry increased from the internship year and two residency years to adding one year to the formal residency years. Knowledge was especially required in the areas of pharmacodynamics and pharmacokinetics, or essentially how medications work; what causes side effects; and how the medications the average psychiatrist might prescribe will affect the liver metabolism of other medications that a patient might be taking.

There seems to be two types of general psychiatry developing in modern practice. The first (and not one I subscribe to) is the use of multiple medications to treat the symptoms of the patients, with little regard to their psychology. This unfortunately seems to be the majority of contemporary practice. The so called biologic psychiatry.

The second is the combination of psychotherapy and pharmacotherapy thereby understanding the patient as a whole individual. This is how I was trained as were many of my contemporaries.

Virtually all psychiatry involves the use of somatic (drug) treatments and the integration of good medical practice. As the field begins to stretch into areas such as Memory

Disorders and the behavioral ramifications of neurologic disorders and disorders of the other bodily systems, a boundary again arises creating another separation in practice typology between the General Psychiatrist and what is referred to today as the Neuropsychiatrist or the Cognitive/Behavioral Neurologist. To conceptualize Neuropsychiatry or Cognitive /Behavioral Neurology, the physician needs to focus on the pathology, neurologic structure, chemistry, and other abnormalities involved in the body's systems and the interplay with brain function. It becomes essential to have within one's practice scope knowledge of the behavioral manifestations from many illnesses and injuries that affect the brain.

Remembering what the mnemonic AEIOU TIPS, and what it stands for, will keep the neuroscientist in good stead. In identifying each of these illness processes and categories, the practitioner needs to be able to perform not only a physical exam with a high degree of expertise, but must also be aware of how to evaluate a person suffering from these disorders.

A: Stands for **Alzheimer's** and other dementias. This area of diagnostics and recently, treatment and overlaps all types of psychiatry. The neuropsychiatrist needs to know how to differentiate between Alzheimer's, Frontotemporal, Frontosubcortical (e.g. Binzwanger's disease) and other less common dementias. Symptoms that coincide with the dementias can include Psychosis, Depression, Obsessive-Compulsive behavior, irritability, language abnormalities, profound personality changes, aggression, and of course Memory Dysfunction. In the area of diagnosing and treating dementias, the Neuropsychiatrist needs to be proficient in the utilization of the full higher cortical function battery added on to the physical exam, which gives a greater understanding of any deficits involving the dominant, nondominant, frontal and prefrontal regions of the brain as well as the cerebellum and motor tracts. The last "A's" to always keep a part of the differential is **addiction and accidents.**

E: Stands for **Endocrine**. It is common for general psychiatrists to get thyroid function assays of the depressed patients after the start or prior to the start of antidepressant medications. Other endocrine abnormalities can result in psychiatric manifestations. Those include abnormalities of the pituitary and Hypothalamic-pituitary –axis, the adrenals, Diabetes, and Hyper- or Hypogonadism.

I: Stands for **Infection**. This can include Meningitis, Encephalitis, and very commonly in the elderly, Pneumonias and /or Urinary Tract Infections. In addition, HIV disease and opportunistic infections need to be considered under this category as well. Acute delirium and its treatment falls in this category.

O: Stands for **Oxygenation**. Pulmonary dysfunction results in problems with memory and agitation. This is more common in Hypercarbia than with Hypoxia, though does occur with both. This is seen more commonly in end-stage lung disease, such as end stage COPD (emphysema).

U: Stands of **Uremia** and other **metabolic diseases**. Besides kidney disease, liver disease can cause significant mental status changes as well as changes in the metabolism of medications that a patient takes, and medication interactions as well. This is important in this unfortunate age of polypharmacy. Other considerations are less well known metabolic diseases such as Metachromatic Leukodystrophy, Wilson's Disease (abnormalities in copper metabolism), as well as the vitamin deficiency syndromes.

T: Stands for **Trauma**. In the evaluation of Traumatic Brain Injuries the neuropsychiatrist should be familiar and comfortable reading CT scans and MRI's of the brain in both the acute and chronic phases, (not to the level of the radiologist but well enough to give a diagnostic impression and make a referral if needed). The finding of diffuse axonal injury is an important prognostic indicator. Similar testing and a physical exam are essential like with the dementias. The neuropsychiatrist needs to know the differentiation and prognosis of mild, moderate and severe traumatic brain injuries.

I: Infarcts and Strokes. Infarcts and Strokes, like head injuries, can cause a variety of syndromes that can appear almost identical to the idiopathic syndromes treated by the General Psychiatrist. Both Mania and Depression are frequently seen in infarcts involving the frontal lobes with a spectrum of abnormal behaviors that spans from aphasias, dyscontrol to agnosias. Here too, reading a head scan is essential.

P: Stands for **Parkinsonism** and the other movement disorders, such as Huntington's Disease, Hallervorden-Spatz Disease, Multiple Sclerosis and ataxias.

S: Stands for **Seizures**. This would include seizure disorders from simple motor seizures to complex partial seizures, which results in a variety of both ictal and interictal abnormal behavioral manifestations. These less common types of seizures may be an explanation for unexplained, and out of character behaviors.

By no means is this the complete role and knowledge of the Cognitive/Behavioral Neurologist or Neuropsychiatrist. Knowing how to use this mnemonic can help the neuropsychiatrist review categories of illnesses or injuries that may be affecting an individual.

It is my hope that the expanded boundaries of my clinical skills will be a valuable addition to your referral base. I hope that you will utilize me to help with your civil and criminal cases.

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