

Future Perspective of Psychiatry

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The advancement of research, discovery of new antipsychotic, antidepressant, mood stabilizer and anti-epileptic drugs has created a ray of hope for the sufferer of psychiatric illnesses that they will be benefited more than ever and their life style will be changed in a better way than the past. The stigma attached to psychiatry is also on decline since last many years resulting in increased patients comfort to meet the psychiatrist. These all together has changed the scenario of psychiatry globally and specially in Pakistan.

The future of psychiatry is bound to change sooner than expected, with rapid development in psychopharmacogenetics investigative and genetics fields also. Already a biological test panel is being proposed for major depression as well as a test to select cases of schizophrenia, which will respond to Clozapine.[1] Living in these times we feel the turnover from an art, which was 'psychiatry for the functional disorder', to a fact based science in which there will be 'organic underpinnings' well identified and well defined. It's probably an era of neurosciences.[2,3] Now understanding psychiatry is not merely to diagnose the diseases and prescribe drugs to eliminate symptoms but its is to treat total human being with complete restoration of functionality with psychological assessment.

Henry Nasrallah in the February issue of Current Psychiatry 2012 describes 6 trends that will affect the practice of psychiatry.[4]

- Earlier diagnosis and treatment.
- Genetic discoveries.
- Targeting of neuroplasticity.
- Neurostimulation, as in VNS, TMS, DBS.
- Psychopharmacogenetics.
- Intertwining of physical and mental disorders.

What all of the above means that the disease may be treated in Prodrome, (may be treated) and prognosis may improve beyond our expectations. The discovery of genes associated with serious psychiatric disorders. Neuregulin 1, dysbindin, DISC1, DAOA (G72), PRODH and COMT are among the many odd-sounding genes located on various chromosomes. These discoveries confirm the 'complex genetics' of psychiatric disorders.[5]

Soon it will be leading to the holy grail of psychiatric treatment: specific, biotechnology-driven, disease-modifying pharmacotherapeutics rather than merely symptom-control agents.

Structural atrophy of the brain at the cellular and molecular levels has been documented in psychosis, mania, depression and anxiety. These findings have shifted our perspective of mental illness beyond the

simplicistic notions of 'chemical imbalance'. The new model is progressive neuroplasticity changes in neurons, dendritic spines, neurite extensions and synapses (i.e. the neuropil) with both grey and white matter reductions impairing brain connectivity and functioning.

Researchers are now developing a neuro-protective paradigm to reverse neuroplastic changes as a new brain-repair strategy. Thus, therapeutic agents and their targets may include: Neurogenesis stimulators to replenish neurons. Neurotropic enhancers to reverse deficits in various growth factors, such as nerve growth factor (NGF), brain-derived neurotropic factor (BDNF), vascular endothelial growth factor (VEGF) etc. Glia-proliferation enhancers to rebuild white matter. Tumor necrosis factor-alpha (TNF- α) inhibitors to combat the inflammatory process reflected by high cytokine levels in psychotic and mood disorders, etc.[6] A new era of repetitive transcranial magnetic stimulation (rTMS) and vagal nerve stimulation (VNS) has already begun, and the next 'big thing' may be deep-brain stimulation (DBS), which is becoming a routine treatment for neurologic conditions such as Parkinson's disease.

Pharmacogenetic screening in clinical practice soon will become routine – it already is at a few US academic hospitals – and will enable psychiatrists to customize drug treatment to achieve better efficacy and tolerability for each patient. This will help us adapt therapies to address genetic variations within our ethnically diverse society.[7]

A comparatively high mortality rate from cardiovascular disease has been documented in persons with serious psychiatric disorders, especially schizophrenia, bipolar disorder, major depression and anxiety. Similarly, persons with obesity, diabetes, dyslipidemia and hypertension suffer from higher rates of psychiatric disorders. Inflammatory factors, in part secreted from visceral adipose tissue, appear to be a common pathway.[8]

The optimal psychiatric practice is becoming a collaborative model of care between psychiatrists and family physicians, so that patients receive integrated, comprehensive physical and mental treatments.

However, we do not share Dr. Nasrallah's optimism as we find picture of psychiatry here in our homeland bleak and getting bleaker. The simple reasons are not too hard to guess – rising cost of living, issues of safety in day to day routine, etc. have left us even mind boggled. There was a recent employment opportunity in a foreign land and not only postgraduates but

specialists ran for it. The country in question took brief interview and called upon even half qualified trainees with a promise of better prospects and no issue of our mundane existence here. We will have to collaborate with family physicians and paramedics too, as our existing technical reserves are fast depleting, we are in dire need of producing 'Community Mental Health Workers' who will be our torch bearers in far flung areas and may carry the burden easily and willingly in their respective areas.

Finally ending on a note of optimism we believe that these are the times when science will be able to map person's thoughts, what a world to live in when the brain will yet again be open and we won't have to have a belief system proposed by Freud.[9] Some say he is dead, some still are optimistic about his theories. We can only experience the hope that I may be there to witness the tremendous change, which will revolutionize psychiatry into neuro-psychiatry, after all even Freud was a neurologist.

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