Field of Psychiatry: Current Trends and Future Directions: An Indian Perspective

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ABSTRACT

Attempting to predict future is dangerous. This is particularly true in medical science where change is a result of chance discoveries. Currently, practicing psychiatrists are aware of deficiencies in psychiatric practice. However, we have a number of genuine reasons for optimism and excitement. Genetics, novel treatment approaches, new investigative techniques, large-scale treatment trials, and research in general medicine and neurology will give better insights in psychiatric disorders and its management. Psychiatric services in rural India can be reached by telemedicine. There are some threat perceptions which require solving and remedying. Subspecialties in psychiatry are the need of the hour. There is also a requirement for common practice guidelines. Mental Health Care Bill, 2013, requires suitable amendments before it is passed in the Indian Parliament. Research in psychiatry is yet to be developed as adequate resources are not available.

Key Words: Academics and research; Deficiencies in current practice; External and internal challenges; Future of psychiatry; Insurance; Interpersonal professional rivalries; Myths; Psychiatry in metro cities; Rural psychiatry

Peer reviewer for the paper: Anon

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Received 28 Aug 2015. Revised 14 Jan, 8 Jun 2016. Accepted 10 Jun 2016.
Introduction

Since the beginning of recorded history, public imagination has been fascinated and provoked by the mentally afflicted. Public perceptions have tended toward polar extremes: on the one hand, fear, ignorance, ridicule, and revulsion; on the other hand, idealization, romanticism, and voyeuristic curiosity. The social constructions of madness throughout history have coloured both lay and professional notions of mental illness and its treatment in the present age.

The challenge in this postmodern era is to consider our own constructs of what mental suffering means and to reflect upon how we should portray the psychiatric profession in society. In doing so, it is worth remembering the ideas we have inherited from our ancestors and how these ideas pervade the current discourse. Most such ideas contain at least some observation and experience which are worthy of analysis.

Having said that, the current state of psychiatry as a field, its practices and trends, academics and research, its facilities in metros and rural areas, and its legislation and social security measures need scrutiny. Equally important is a look at future trends in practice and research. My aim in this paper is to look at all these from an Indian perspective.

Current Practice and Trends

Currently, practising psychiatrists are aware of deficiencies in current psychiatric practice. We lack knowledge of the aetiology and pathogenesis of most psychiatric disorders. We do not have a single biomarker in psychiatry yet (Singh, 2014). We have no objective or prognostic investigations, and our drug and psychological treatments are often partially effective. While we welcome the ongoing gradual progress in knowledge and treatments, we are impatient for rapid and fundamental improvements. We hope to join the other medical specialties in moving from “descriptive to analytical,” i.e., being fully “evidence based.”

However, we have to be cautious. There have been false leads previously. The insights into mental mechanisms provided by the psychoanalytical pioneers in the first half of the 20th century gave rise to the hope that these methods would prove therapeutic in many mental illnesses. The discovery of effective antipsychotic and antidepressant drugs in the 1950s raised hopes that examination of drug effects would reveal the pathological mechanisms of the underlying diseases (David, 2013). The move to community care in the USA was driven by the hope that many of the deficits experienced by the sufferers were due to institutional living. None of these hopes were fulfilled. However,
in the first decade of the 21st century, we have a number of genuine reasons for optimism and excitement, which I will detail later.

**The Current Status of Psychiatry as a Profession**

Psychiatry as a profession faces external and internal challenges. Is the psychiatrist an endangered species (Heinz, 2010[3])? Advances in theoretical knowledge and basic understanding of psychiatric disorders have not significantly helped psychiatrists to maintain their status in the medical profession. There is marginalization of the profession. Psychiatrists are considered further away from mainstream medical specialists. Some medical professionals believe it is not a science in true terms. Psychoanalytical and psychological theories are believed to be a piece of imagination to explain mental diseases. Psychotherapies are not considered true therapies but just common sense counselling which anybody can do for everybody has the right to counsel others. Physical treatments are considered harmful and barbarous. Electroconvulsive therapy (ECT) was invented by experimentation and observation and its true mechanism of action was ill understood and hence was considered unscientific, and the public perception was that it was meant to torture and punish ill people. Drugs used in psychiatry have addiction potential and can be harmful for people who take it for a long time.

Myths surrounding psychiatry are innumerable and are difficult to eradicate. Psychiatry as a profession has to cross many hurdles to establish itself as a reputed and acceptable branch in medicine as well as in the public domain. People do not come out to support and appreciate it like they do for heart ailments, cancer, or fashionable surgeries. Psychiatrists are unable to advertise their successes in the media due to confidentiality issues attached. As specialists, psychiatrists often see treatable psychiatric disorders all around but are helpless to diagnose or treat them. Addicts and mentally ill people on the streets are a common sight and it seems as though everyone has learnt to avoid them like landfills.

There are interpersonal professional rivalries within the health-care system. Here, mainly, economic factors play a major role. Other specialists take away psychiatric patients purely due to commercial reasons. They try to treat them with minimal knowledge of psychotropic drugs prescribed in small and often erratic combinations. This may be combined with some paternalistic advice in the name of psychotherapy. Often, this continues for months till the patient finally lands up with a psychiatrist, often on the advice of a patient who had suffered similarly.

**Academics and Research**

Developments at workplace have more influence on training than academic developments. There is a language of consumerism, service user, and the client.
Whether it is a general hospital’s psychiatry department, a mental hospital, or a psychiatric nursing home, it is not academic developments and new research that influence the work. Rather, it is the setup, resources, and the usual established work routine which matters the most. Academics may, and hopefully should, change the work routine and training gradually over a period of time.

Pure academics are learned and encouraged only in selected institutions such as NIMHANS, PGI Chandigarh, and Ranchi. Psychiatric departments in medical colleges do their utmost to create an interest in medical students and postgraduates, but these departments have limited facilities and are mainly concentrating on clinical work and patient care. Placements in neurology, medicine, and geriatrics are not easily available during psychiatry training, and research facilities are few with resources and time constraints. Patient care takes away most of the time during postgraduate training and so academics and research suffer in the small departments of medical colleges. Subspecialties for training such as child and adolescent psychiatry, forensic psychiatry, geriatric psychiatry, and addiction medicine are available only in NIMHANS and few other centers in India. Psychiatry in general hospital or liaison psychiatry is the need of the present practice in cities. Liaison psychiatry as a subspecialty is yet to develop as a branch of general psychiatry.

Rural Psychiatry

There is a limited scope to provide psychiatric services in rural India as professional workforce is limited here and facilities are not adequate to cater to rural populations. Primary health centers in rural areas can be helped by telemedicine and patients can be treated with the help of medical officers in charge at primary health centers by video conferencing. However, for that efficient reach of the electronic media in rural areas is a must, a tall order considering the realities of today.

There is a possibility of developing psychiatric rehabilitation centers in such rural areas as such centers require vast tracts of land, independent colonies, and other such facilities. This is not possible in cities due to space crunch. This possibility needs to be aggressively explored.

Psychiatric Facilities in Metro Cities

To establish a psychiatric nursing home in metro cities has become a difficult task under the requirement of the present Mental Health Act. One needs his/her own plot to develop a nursing home. Residential societies or commercial establishments do not give permission due to fear of mentally ill people on their premises.
Psychiatric patients are mainly treated at general hospital departments. Admission facilities are limited even in these departments. Five-star private hospitals do not encourage psychiatrists to admit patients in their hospitals. Most such institutions provide outdoor consultation services only. Hence, in conclusion, psychiatric facilities in metro cities are scarce in comparison to the need of the population.

Emergency psychiatric services are extremely limited and hardly available. Psychiatric ambulance service has become a rarity and is too costly.

It is easy to blame others for such a state of affairs or to sit quiet lamenting this fact. The need is to give up both and take steps to do something about it. Mental health activism, properly directed, is the way forward.

Insurance and Other such Services for the Mentally Ill

Insurance companies do not find it profitable to insure people for their mental illnesses. In fact, if a person commits suicide within a year of taking a policy, beneficiaries (usually family members) do not get the claimed money.

Some organizations, companies, and business or government employees have benefits for psychiatric services in their health schemes. Such organizations create their own facilities exclusively for their employees. This is a laudable development and needs to spread to other organizations.

Mental Health Care Bill, 2013 (Chaudhari et al., 2013)[1]

There are important issues suggested in the Bill such as postadmission judicial review, advance directive, ban on unmodified ECT, and ECT to minors only by permission of review commission. These require discussions and suggestions from academicians and clinicians while considering the realities and practicality of the issues in different clinical establishments in the country.

Future Directions

Future directions are the rough guidelines on which psychiatry can progress, keeping in mind the perceived current deficiencies.

There is a need for evidence-based psychiatry which integrates with day-to-day clinical care. As new evidence appears through research, often there is a great delay in its application in clinical practice. There is a need to integrate such newer trends which are evidence based and have the potential to improve outcome and overall treatment results.
Bio-psycho-social model is a single entity, and all the three areas of the model need to develop further in academics, research, and to create practical guidelines. All three areas are equally important. Researchers in biological psychiatry, psychologists inventing new techniques in psychotherapies, and sociologists trying to understand changing social milieu influencing mental illnesses, all these have a great potential to create lasting value and evolve practical guidelines for the future.

There is also a need to create general psychiatry at primary care, with an immediate treatment package and a friendly business model. Often, well-developed psychiatric facilities are available in big cities, but people have to travel long distances to avail these facilities. There is a great need to develop staff and facilities at primary care centers. In addition, there should be prompt treatment packages, affordable to most people, at general government or municipal hospital services. They may be free for poor class of society, but at the same time, there should be a friendly business model for upper class of society as well.

Seven trends which are important to develop in practice are outlined below:

1. Early diagnosis and early intervention to delay, modify, or ameliorate incipient serious illness. To diagnose and to treat prodrome in illnesses such as schizophrenia and mania.
2. Genetic discoveries leading to molecular pathophysiology and biotechnology driven disease-modifying pharmacotherapy other than merely symptom-controlling agents.
3. Neuroplasticity as a symptom target as seen in structural atrophy at cellular and molecular levels documented in psychosis, mania, depression, etc., away from the theory of only “chemical imbalance” (Henry 2009[4]). In addition, new neuroprotective paradigm to reverse neuroplastic changes as new brain repair strategy (Henry, 2009[4]).
4. Therapeutic agents such as caspase inhibitors to stop apoptosis, neurogenesis stimulators, various neurotrophic enhancers such as nerve growth factor, brain-derived neurotrophic factor, vascular endothelial growth factor, antioxidants to neutralize excess free radicals, glia-proliferation enhancers to rebuild white matter, and tumor necrosis factor alpha inhibitor to combat inflammatory processes reflected by high cytokine levels in psychotic and mood disordered patients (Henry, 2009[4]).
5. In neurostimulation for brain repair, ECT is sparingly used now. Repetitive transcranial magnetic stimulation, vagal nerve stimulation, and deep brain stimulation used for neurological disorders such as parkinsonism have become the common modalities (Henry, 2009[4]).
6. Pharmacogenomics in clinical practice has a predictive value. For example, poor metabolizers experience side effects at lower dosages whereas fast metabolizers fail to respond and become treatment resistant (Henry, 2009[4]). Pharmacogenetic screening is useful in customizing drug treatment (Henry 2009[4]).
7. Collaborative model, intertwining of physical and mental disorders, for example, increased incidence of cardiovascular diseases in serious psychiatric disorders such as schizophrenia, bipolar mood disorder, and major depression (Henry, 2009[4]). Similarly, patients with obesity, diabetes mellitus, hypertension, and dyslipidemia suffer increased rates of psychiatric disorders (Henry 2009[4]).

Future Trends in Research

If the brain is the focus of mental illnesses, it may be time to be more ambitious in building a classification of mental illnesses directly from brain biology rather than only assessment of patients’ symptoms. The current classification in psychiatry is symptom or syndrome based. As more and more understanding develops through research in brain biology, may be psychiatry will come nearer to other branches of medicines and develop an aetiological diagnosis based on brain biology. Research in biological psychiatry, psychopharmacology, genetics, neuropsychiatry, and neurology can bring about aetiological diagnosis of most diagnostic categories of mental disorders.

Psychopharmacology

Prior division of psychiatric drugs is less valid. Now it is classified according to pharmacological effects. The prior subdivision of antipsychotics, antidepressants, antianxiety and mood – stabilizing drugs is less valid now for the following reasons (1) many drugs of one class are used to treat disorders previously assigned to another class (2) drugs from all four categories are used to treat disorders not previously treatable by drugs (e.g., eating disorders, panic disorders and impulse control disorders) and (3) drugs such as clonidine, propranolol and verapamil can effectively treat a variety of psychiatric disorders and do not fit into aforementioned classification of drugs (Sadock et al., 2015[5]).

Endophenotypes

An endophenotype is an internal phenotype which is a set of objective characteristics of an individual that are not visible to the unaided eye because there are so many steps and variables that separate a particular set of genes from the final functioning of human brain. This hypothesis is based on the assumption that the number of genes that are involved in an endophenotype might be fewer than the number of genes involved in causing what we would conceptualize as a disease. This has a major significance for psychiatry.

Psychiatry and human genome

Perhaps, 70%–80% of the 25,000 human genes are expressed in the brain, and because most genes code for more than one protein, there may be 1 lakh
different proteins in the brain. Perhaps, 10,000 of these are known proteins with comparatively identified functions, and no more than 100 of these are targets for existing psychotherapeutic drugs. The study of families with the use of population genetics methods over the past 50 years has consistently supported a genetic, heritable component of mental disorders. More recent techniques in molecular biology have revealed that specific chromosomal regions and genes are associated with particular diagnoses.

**Genetics-based diagnostic system**

Mental disorders reflect abnormalities in neuroanatomical circuits and synaptic regulations (Sadock *et al.*, 2015[5]). Why not a genetics-based diagnostic system? This proposal seems premature based on the complexity of the genetic factors involved in psychiatric disorders.

**Lessons from Neurology**

Amyloid precursor protein abnormalities have been seen in some patients with Alzheimer’s disease, the presence of trinucleotide repeat mutations in Huntington’s disease, spinocerebellar ataxia, and appreciation of alpha-synucleinopathies such as Parkinson’s disease and Lewy body dementia (Sadock *et al.*, 2015[5]). The continued separation of psychiatry from neurology is in itself a potential impediment to good patient care and research. Many neurological disorders have psychiatric symptoms. For example, depression in patients following a stroke or with multiple sclerosis or Parkinson’s disease and several or most severe psychiatric disorders associated with neurological symptoms, for example, movement disorders in schizophrenia, all these require further research to know the secrets of brain and behaviour.

**Conclusions [Figure 1]**

- The present paper emphasizes the deficiency in the current practice of psychiatry.
- The paper describes the current status of the profession, academics, training, and research in psychiatry.
- It discusses rural as well as urban psychiatry.
- Important future directions in the areas of genetics, neuroplasticity, pharmacogenomics, and neurostimulation are discussed.

**Take Home Message**

Psychiatry is a developing branch. There are deficiencies in its current practice. Metro cities also do not provide ideal services. We have to cross many frontiers in the future to reach desirable goals in practice and research.
Conflict of interest

None declared.

Declaration

An earlier draft of this paper was presented at a Bombay Psychiatric Society’s Symposium held on February 18, 2015.

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Questions that this Paper Raises

1. Is there a scope for improvement in the current practice of psychiatry?
2. How do we develop academic training and research in general hospital psychiatry departments?
3. What are the future directions that are achievable in a time-bound manner?
4. Is it possible that research findings can be tried out in day-to-day practice while treating psychiatric patients?

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