

## Past, Present and Future Psychiatric Trends in USA: Lessons for All

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Globalization, technology, trade and tourism have played significant roles in creating the trend towards open societies from closed or collectivist societies around the world. Cultural, ethnic, and religious pluralism have been parallel trends that have gained more momentum after the end of the cold war. In return, open societies and pluralism have contributed to easier identification and expression of emotional symptoms and seeking treatment, which has gradually increased the reported frequency of psychiatric conditions in many societies. For instance the World Health Organization (WHO) has listed depression as the most debilitating illness for the world population in terms of “years lived with disability” and the fourth according to the “disability adjusted life years” (sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability) and has predicted that it will become the second by the year 2020 in all age groups (1).

On the other hand, in most countries administrators and health care providers have not been able to offer adequate resources and access to care and to develop adequate healthcare delivery systems especially for psychiatric treatment. Even for conditions with proven effective treatments like depression or anxiety, access to care,

availability of medications and therapies, and adherence to treatment are still low. A recent New York Times editorial discussed the issue that more than 50% (36 million (M)) of 67M hypertension (HTN) patients in USA do not have their HTN controlled, despite almost half of them (32M) getting regular medical care and 30M having health insurance. Uncontrolled HTN patients are four times more likely to die of stroke and have a three times higher risk of dying from heart disease, compared to patients with controlled HTN (2). The editorial was based on a report from the Center for Disease Control and Prevention (CDC), which recommended increased efforts by patients, clinicians, and health systems for better control of HTN (3). Obviously the situation for common psychiatric conditions is likely much worse than HTN, as HTN can be diagnosed and treated quickly and easily and access to primary care is much higher than mental health care.

This is a good example to show how much needs to be done to improve treatment rates for depression, anxiety, and other common psychiatric conditions in USA and likely the rest of the world. As clinicians, we should continue our efforts to treat patients and educate the public and policy makers about the benefits of available mental health treatments. We should also focus on developing better access to care and treatment and improving rates of adherence by patients. In this regard, learning and teaching about current, dominant psychiatric trends can help us to appreciate their limitations, develop a better understanding of our patients, and predict future directions in the field.

Historical knowledge and perspectives result in better understanding of the driving forces behind past and current trends such as innovations, technology, societal expectations, life style and cultural changes, etc. It is well known that Emil Kraepelin’s manic-depressive illness and dementia praecox nosology was a major step in describing psychiatric conditions at the turn of the 20<sup>th</sup> century. However, the rise of the psychoanalytic movement and the newly introduced neurosis-psychosis continuum dominated the psychiatric field between the 1940s and 1970s especially in USA (4). In a way, the nineteenth century insanity model remained in effect as the disease tradition of medicine was not central in psychiatry until the second half of the twentieth century.

World War II increased expectations from psychiatrists and expanded the role of psychiatry by creating the need to care for the neuropsychiatric symptoms of soldiers.

Psychiatrists were asked to evaluate and determine strengths and weaknesses of soldiers and to predict human behavior with reasonable accuracy (5). The history of psychiatry (1916) by Hurd and the centennial historians in 1944 captured the idea that the passion of the profession was “helping patients.” Psychiatry like other social sciences has always had an interest in human beings, but also in their behavior and capacity to learn, grow, and change (5).

From World War II through the 1970s, a primarily psychodynamic framework and psychoanalysis shaped the psychiatric approach and treatment in the USA. Past thoughts and feelings of patients and their impact on current emotions, thoughts, and behaviors were formulated as patient narratives (5). Defense mechanisms and the psychodynamic model were used to explain problems within the neurosis-psychosis continuum. Psychoanalysis was the dominant approach and psychiatric trainees were encouraged and by some programs required to get their own analysis as part of the training. Until the 1980s many psychiatry department chairs in USA were psychoanalysts.

While the number of patients in state institutions continued to increase, psychiatrists developed dramatic somatic treatments such as electroconvulsive therapy (ECT) and lobotomy (6,7). Gradually the neo-Kraepelian school and biological models gained strength. With better treatment results of somatic treatments and psychopharmacological agents, the biopsychosocial perspective started to find a wider interest and acceptance. The role of psychoanalysis gradually eroded and eventually psychodynamic therapy became only one of the therapies taught during residency training. The number of trainees voluntarily pursuing psychoanalytic certification during or after residency decreased significantly and has remained low.

When lithium, chlorpromazine, and imipramine were introduced to treat mania, schizophrenia, and depression, respectively in the 1950s (8), the foundations of the future psychopharmacological revolution were set in place. In the next three decades, typical antipsychotics and tricyclic antidepressants were added to barbiturates and benzodiazepines, significantly expanding the pharmacological tools at the disposal of psychiatrists. Coincidentally, the de-institutionalization movement resulted in thousands of patients being discharged from state hospitals and lunatic asylums in the 1960s. New medications and the establishment of community mental health centers by President John F. Kennedy played a significant role in treating and managing the chronically mentally ill in communities rather than in

large institutions. Some criticized this approach, as groups of mentally ill patients ended up on the streets of cities and worsened the problem of homelessness. Homelessness has remained a problem to this day in many major USA cities.

Symptom checklists and the Diagnostic and Statistical Manual of Mental Disorders (DSM) have been around since the 1960s, but a revolutionary change in the system of nosology in the US occurred in 1980 because of the DSM III. The impact of the DSM III, IIR, IV, IV-TR have been very significant not just in the USA, but in world psychiatry. The DSM has become the defining reference for psychiatric nosology in medical schools, research and education institutions, and hospitals worldwide. The field trials, preparations, and processes for preparation of the DSM 5 have been hot discussion topics not just in the psychiatric and medical communities, but also in the media. The DSM 5 is scheduled to be released in the spring of 2013 (9). On the other hand “the neo-Kraepelian system,” which is credited for the development of the DSMs, has also raised concerns about overdiagnosis of psychiatric conditions (nosologomania) (10).

Another significant date in the history of psychiatric treatment was the approval of fluoxetine by the US Food and Drug Administration (FDA) as the first selective serotonin reuptake inhibitor (SSRI) in 1987 (11). With the discovery, approval, and widespread use of SSRIs and other novel antidepressants (AD), millions of prescriptions have been written by primary care providers (PCP) and psychiatrists. The medical model and outreach campaigns have played significant roles in decreasing the stigma of mental illness, but some sources also mention the marketing strategies and campaigns of the pharmaceutical industry. On the other hand, yet some others argue “nosologomania” and unnecessary use of psychotropic drugs have occurred. Media marketing campaigns and boundary violations between clinicians and pharmaceutical industry representatives might have contributed to the widespread use of new medications.

Starting in the mid-1990's, risperidone and other atypical antipsychotics were discovered and widely prescribed, initially for schizophrenia, and later for bipolar and treatment resistant depression. Over the last decade, a trend toward product differentiation has been in play. Products with small chemical differences from the former brand name products, for which the patents were expiring, have been developed under new brand names protected with patents. Citalopram/S-citalopram, venlafaxine/desvenlafaxine, and risperidone/

paliperidone could be listed as examples in psychiatry, but there have been others in other areas.

Again over the last decade, we have seen a slowing in the number of new psychotropic drug approvals by the FDA and more importantly there has been almost no new major novel psychotropic agent in psychiatry. The pharmaceutical industry has focused on marketing quality of life medications as blockbuster products. Efforts to develop medications to treat other common psychiatric (e.g. dementia) and substance abuse or addiction conditions so far have had only limited success.

Industrialization has changed the structure of communities and the majority of populations have moved to cities resulting in major economic, educational, health, and cultural changes in all nations throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries. This trend is still continuing in China, India, Africa and other developing countries. In addition, populations in almost all countries have been transformed by the internet, information technology (IT) advances, and more recently social networks and media. All of these changes have increased the demands on companies, governments, and people to be more productive, efficient, and competitive. Demands for more and better goods and services have been increasing everywhere in the world and forcing individuals and societies alike to be more competitive and productive.

Possible compensation mechanisms and major results of these changes are increased stress and anxiety levels, time pressure, and less down time not just at work, but also at school and home settings. Families have become smaller, parents have been working longer hours, values and traditions have been weakened, children and the elderly have not been getting as much love and respect as they were getting three or four decades ago in most societies. All of these and other unknown factors have created a rapid increase in the need for psychiatric, psychological, and social work services and treatments; however, the available services and resources have been slow to catch up with the demand.

While rich countries like the USA and European nations struggle with high unemployment, slow economic growth and the outsourcing of manufacturing and service jobs abroad, developing countries are challenged with rapid increases in city populations and public demands for better living conditions, more and better goods and services, and destabilizing traditional structures, all of which create more demands and needs for psychiatric, social, and other health services.

Demands by the public, patients, families, interest groups, licensing and certification boards, regulatory authorities, and other stakeholders are likely to increase on policy makers, administrators, and clinicians including psychiatrists about meeting these needs. We believe that measuring and demonstrating progress in outcomes for treatment of psychiatric conditions will become even more important. Businesses, community groups and policy makers will need to be persuaded by data that psychiatric treatments and services really make a difference not just in quality of lives of the patients, but also in overall productivity.

The DSM based approach standardized diagnostic criteria and improvements in clinical trial designs created the medium to test safety and efficacy of new drugs and therapies. The development of guidelines and algorithms to treat various groups of disorders, such as the American Psychiatric Association (APA) guidelines (12), National Institute for Health and Clinical Excellence (NICE) (13) and Texas Medication Algorithm Project (TMAP) (14) are examples of the efforts to standardize and improve the quality of care in psychiatry. It is time for psychiatrists to design large scale trials as done in other branches of medicine and to identify the public health impact of treating mood and anxiety disorders. So far the sequenced treatment alternatives to relieve depression (STAR-D) trials (15,16) and trials that have shown higher risks of relapse with early discontinuation of antidepressants are the only significant studies in this important public health area. We should not forget that the decrease in smoking rates resulted from various interventions such as awareness and quit smoking campaigns, developing and using treatment tools, increasing taxes on cigarettes, and limiting access for youth.

World War II and the Vietnam War gave psychiatrists the “shell shock,” and “combat fatigue” diagnoses and resulted in many psychological trauma studies with reasonable treatment response rates. The September 11 attack, the Iraq and Afghanistan wars, natural disasters and civilian trauma cases have presented a continued need for ongoing studies in the resilience and trauma fields. In addition to medications, studies of cognitive, behavioral, interpersonal, and dialectical behavioral therapies have been developed and tested to treat and relieve trauma symptoms. Eye movement desensitization and reprocessing therapy (EMDR) has been developed in the last twenty years and has been proven to be effective in some trauma conditions. More recently art therapy, meditation, and mindfulness based approaches have been used to treat

trauma and other psychiatric conditions, but more controlled studies are needed.

Another trend deserving mention is the use of anti-epileptic drugs (AED) in psychiatric conditions. A significant number of mood stabilizing drugs were initially approved as AEDs and later found wide spread use in the treatment of psychiatric conditions. As it is easier, cost-effective, and probably less risky for drug companies to demonstrate efficacy and safety of an agent in epilepsy, they have preferred to pursue FDA approval first in epilepsy rather than psychiatric disorders. The difficulty of finding a homogeneous group of psychiatric patients and the desperation of psychiatrists trying to help their treatment resistant patients might also have contributed to the non-approved use of AEDs in psychiatry. In addition, the possible role of the strategic marketing practices of pharmaceutical companies deserves to be mentioned in this regard. The FDA has fined many companies regarding their marketing practices concerning the non-approved use of their products over the last decade.

In recent years there have been several FDA approvals of device treatments for some psychiatric and neurological conditions such as vagal nerve stimulation (VNS), repetitive trans magnetic stimulation (rTMS), and deep brain stimulation (DBS). Also a re-emergence of surgical interventions should be noted for treatment resistance cases, despite the negative image created by the media and movies and exploited by the anti-psychiatry movement regarding ECT techniques and lobotomy.

In narrowing the gap between best practices and common practice, information technology (IT), interventions demanding and forcing streamlined and standardized processes in the delivery of healthcare, and continuous quality improvement projects possess the potential for significant progress, in addition to adopting and implementing quality improvement practices from other industries. As an example of governmental nudging, payments are more directly correlated to quality measures of health services in the new US healthcare law, which also aims to identify innovative best practices in health care and support their widespread adoption as cost cutting and quality improvement measures.

In the US psychiatry, use of physician extenders such as nurse practitioners and physician assistants and having primary care providers to assess and treat uncomplicated psychiatric conditions, have been becoming more prominent. There has been a strong trend, partially promoted by managed

health care organizations, to have psychotherapy delivered by psychologists and social workers and psychotropics prescribed by psychiatrists. All of these initiatives have been pushed by efforts to decrease the cost of psychiatric care, but might lead to fragmentation and a decrease in quality of care.

In 1999, the Accreditation Council for Medical Graduate Education (ACGME) introduced six domains of clinical competency and in 2009 it began to restructure its accreditation system based on these competencies: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice (17). The new accreditation system will move the ACGME from an episodic “biopsy” model to an ongoing data collection and trend analysis model. Eventually each ACGME accredited specialty including psychiatry will develop its own educational milestones. The annual milestone, resident and faculty surveys, and operative and case-log data will go through annual trends evaluation by using key performance measurements. The periods of competence assessments of programs will be extended from 4-5 years up to 10 years. (18). One of the goals is to detect outlier programs early, develop plans of corrections, and remedy problems in graduate medical education faster.

Innovative and ground breaking diagnostic and treatment options seem likely to be discovered in the areas of neuroimaging, biomarkers, and biochemistry as well as advances in neurogenetics and stem cell applications. Development of diagnostic tests or personalized drugs for various psychiatric conditions, identifying best fit medications, and minimizing the risk of adverse effects would be potential practical benefits from those discoveries. Breakthroughs in shortening the response time and improving the treatment response rate in all psychiatric conditions, but especially in depression and anxiety, might be among the future discoveries as well.

In their editorial “Working towards a new psychiatry” Alam et al. discussed progress in neuroimaging and other neurophysiological techniques, developments in behavioral sciences and psychotherapies and psychiatric genetics and challenged all to think about the ways these developments have affected the science, practice, and clinical value of psychiatry. They also mentioned increasing diversity in socio-cultural values, norms, and perspectives in psychiatry, all of which pose new challenges and opportunities for psychiatric research and practice (19). They mentioned the increasing role of non-western traditions in psychiatry, and

we think possible new approaches stemming from some of these non-western traditions might emerge such as Chinese, Indian, Turkish, Muslim or Buddhist approaches towards some specific psychiatric conditions.

The emerging and expanding field of positive psychology has been gaining traction as scientific base for coaching and might play a role in maintaining a positive and optimistic attitude and offer tools to healthier and higher functioning individuals. There is even a new approach to politics focusing on the overall happiness and well-being of the public rather than just basic governmental functions such as safety, infrastructure, basic services, and education.

In spite of the many discoveries and developments in psychiatry such as neuroimaging technologies, the large number and diversity of psychopharmacological agents, millions of prescriptions, and ever rising health care costs that threaten the solvency of health care, retirement funds, and government budgets, we are not aware of any significant improvement in outcomes of psychiatric conditions in terms of decreasing morbidity in the public

health arena. An exception might be several studies reporting decreases in the number of suicides in some countries that might be associated with the use of antidepressants. Yet, despite all these efforts and sacrifices, according to WHO predictions, depression is on track to become the second highest “disability adjusted life year” losses by the year 2020 from its current 4<sup>th</sup> place.

As mental health professionals, health policy and decision makers, and experts working at academic, research, and service institutions, we should accept our share of responsibility with respect to this issue. New diagnostic and treatment options resulting from research, improved mental health systems to deliver services, and better learning and training methods for trainees and clinicians can be a three-prong approach to identify and group potential emerging trends. Finally we should challenge ourselves and our institutions to improve the mental health of individuals and societies globally by renewed efforts in research, education, and service delivery and by learning from our past failures and successes.

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