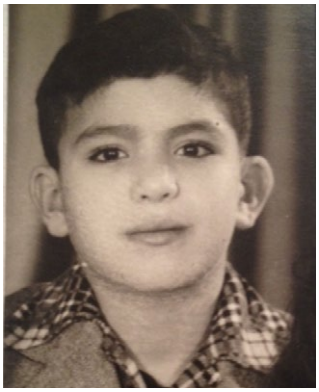
Post-World War II psychiatry: 70 years of momentous change



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Editor-in-Chief

Baby Boomers, born between 1946 and 1964 (including me, shown here as a 7-year-old, who, even then, aspired to be a physician), have witnessed dramatic and rapid developments in their world—in science, technology, and sociology.

A large percentage of psychiatrists practicing today are Boomers, and have experienced the tumultuous change in their profession since the end of World War II. At a recent Grand Rounds presentation in the Department of Neurology & Psychiatry at Saint Louis University, participants examined major changes and paradigm shifts that have reshaped psychiatry since 1946. The audience, which included me, contributed historical observations to the list of those changes and shifts, which I've classified here for your benefit, whether or not you are a Boomer.

Medical advances

Consider these discoveries and developments:

- **Penicillin** in 1947, which led to a reduction in cases of psychosis caused by tertiary syphilis, a disease that accounted for 10% to 15% of state hospital admissions.
- **Lithium** in 1948, the first pharmaceutical treatment for mania.
- **Chlorpromazine**, the first antipsychotic drug, in 1952, launching the psychopharmacology era and ending lifetime institutional sequestration as the only "treatment" for serious mental disorders.
- **Monoamine oxidase inhibitors** in 1959, from observations that iproniazid, a drug used in tuberculosis sanitariums, improved the mood of tuberculosis patients. This was the first pharmacotherapy for depression, which had been treated with electroconvulsive therapy (ECT), developed in the 1930s.
- **Tricyclic antidepressants**, starting with imipramine in the late 1950s, during attempts to synthesize additional phenothiazine antipsychotics.
- **Diazepam**, introduced in 1963 for its anti-anxiety effects, became the most widely used drug in the world over the next 2 decades.
- **Pre-frontal lobotomy** to treat severe psychiatric disorders. The neurosurgeon-inventor of this so-called medical advance won the 1949 Nobel Prize for Medicine or Physiology. The procedure was rapidly discredited after the development of antipsychotic drugs.
- **Fluoxetine**, the first selective serotonin reuptake inhibitor, in 1987, revolutionized the treatment of depression, especially in primary care settings.
- **Clozapine**, as an effective treatment for refractory and suicidal schizophrenia, and the spawning of second-generation antipsychotics. These newer agents shifted focus from neurologic adverse effects (extrapyramidal symptoms, tardive dyskine-

What direction will psychiatry take in the age of Generation X, Generation Y, and the Millennials?

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sia) to cardio-metabolic side effects (obesity, diabetes, dyslipidemia, and hypertension).

Changes to the landscape of health care

Three noteworthy developments made the list:

- **The Community Mental Health Act of 1963**, signed into law by President John F. Kennedy, revolutionized psychiatric care by shifting delivery of care from inpatient, hospital-based facilities to outpatient, clinic-based centers. There are now close to 800 community mental health centers in the United States, where care is dominated by non-physician mental health providers—in contrast to the era of state hospitals, during which physicians and nurses provided care for mentally ill patients.
- **Deinstitutionalization.** This movement gathered momentum in the 1970s and 1980s, leading to closing of the majority of state hospitals, with tragic consequences for the seriously mentally ill—including early demise, homelessness, substance abuse, and incarceration. In fact, the large percentage of mentally ill people in U.S. jails and prisons, instead of in a hospital, represents what has been labeled *trans*-institutionalization (see my March 2008 editorial, "Bring back the asylums?," available at CurrentPsychiatry.com).
- **Managed care**, emerging in the late 1980s and early 1990s, caused a seismic disturbance in the delivery of, and reimbursement for, psychiatric care. The result was a significant decline in access to, and quality of, care—especially the so-called carve-out model that reduced payment for psychiatric care even more drastically than for general medical care. Under managed care, the priority became saving money, rather than saving lives. Average hospital stay for patients who had a psychiatric disorder, which was years in the pre-pharmacotherapy era, and weeks or months after that, shrunk to a few days under managed care.

Changes in professional direction

Two major shifts in the complexion of the specialty were identified:

- **The decline of psychoanalysis**, which had dominated psychiatry for decades (the 1940s through the 1970s), was a major shift in the conceptualization, training, and delivery of care in psychiatry. The rise of biological psychiatry and the medical model of psychiatric brain disorders, as well as the emergence of evidence-based (and briefer) psychotherapies (eg, cognitive-behavioral therapy, dialectical behavior therapy, and interpersonal therapy), gradually replaced the Freudian model of mental illness.

As a result, it became no longer necessary to be a certified psychoanalyst to be named chair of a department of psychiatry. The impact of this change on psychiatric training has been profound, because medical management by psychiatrists superseded psychotherapy—given the brief hospitalization that is required and the diminishing coverage for psychotherapy by insurers.

- **Delegation of psychosocial treatments to non-psychiatrists**. The unintended consequences of psychiatrists' change of focus to 1) consultation on medical/surgical patients and 2) the medical evaluation, diagnosis, and pharmacotherapy of mental disorders led to the so-called "dual treatment model" for the most seriously mentally ill patients: The physician provides medical management and non-physician mental health professionals provide counseling, psychosocial therapy, and rehabilitation.

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Disruptive breakthroughs

Several are notable:

• **National Institute of Mental Health (NIMH).** Establishment of NIMH in April 1949 was a major step toward funding research into psychiatric disorders. Billions of dollars have been invested to generate knowledge about the causes, treatment, course, and prevention of mental illness. No other country has spent as much on psychiatric research. It would have been nearly impossible to discover what we know today without the work of NIMH.

• **Neuroscience.** The meteoric rise of neuroscience from the 1960s to the present has had a dramatic effect, transforming old psychiatry and the study and therapy of the mind to a focus on the brain-mind continuum and the prospects of brain repair and neuroplasticity. Psychiatry is now regarded as a clinical neuroscience specialty of brain disorders that manifest as changes in thought, affect, mood, cognition, and behavior.

• **Brain imaging.** Techniques developed since the 1970s—the veritable alphabet soup of CT, PET, SPECT, MRI, MRS, fMRI, and DTI—has revolutionized understanding of brain structure and function in all psychiatric disorders but especially in psychotic and mood disorders.

• **Molecular genetics.** Advances over the past 2 decades have shed unprecedented light on the complex genetics of psychiatric disorders. It is becoming apparent that most psychiatric disorders are caused via gene-by-environment interaction; etiology is therefore a consequence of genetic and non-genetic variables. Risk genes, copy number variants, and de novo mutations are being discovered almost weekly, and progress in epigenetics holds promise for preventing medical disorders, including psychiatric illness.

• **Neuromodulation.** Advances represent an important paradigm shift, from pharmacotherapy to brain stimulation. Several techniques have been approved by the FDA, including transcranial magnetic stimulation, vagus nerve stimulation, and deep brain stimulation, to supplement, and perhaps eventually supplant, ECT.

Legal intrusiveness

No other medical specialty has been subject to laws governing clinical practice as psychiatry has been. Progressive intrusion of laws (ostensibly, enacted to protect the civil rights of "the disabled") ends up hurting patients who refuse admission and then often harm themselves or others or decline urgent treatment, which can be associated with loss of brain tissue in acute psychotic, manic, and depressed states. No legal shackles apply to treating unconscious stroke patients, delirious geriatric patients, or semiconscious myocardial infarction patients when they are admitted to a hospital.

Distortions of the anti-psychiatry movement

The antipsychiatry movement preceded the Baby Boomer era by a century but has continued unabated. The movement gained momentum and became more defamatory after release of the movie *One Flew Over the Cuckoo's Nest* in 1975, which portrayed psychiatry in a purely negative light. Despite progress in public understanding of psychiatry, and tangible improvements in practice, the stigma of mental illness persists. Media portrayals, including motion pictures, continue to distort the good that psychiatrists do for their patients.

Gender and sexuality

• **Gender distribution of psychiatrists.** A major shift occurred over the past 7 decades, reflecting the same pattern that has been documented in other medical specialties. At least one-half of psychiatry residents are now women—a welcome change from the pre-1946 era, when nearly all psychiatrists were men. This demographic transformation has had an impact on the dynamics of psychiatric practice.

• **Acceptance and depathologization of homosexuality.** Until 1974, homosexuality was considered a psychiatric disorder, and many homosexual persons sought treatment. That year, membership of the American Psychiatric Association voted to remove homosexuality from DSM-II and to no longer regard it as a behavioral abnormality. This was a huge step toward de-pathologizing same-sex orientation and love, and might have been the major impetus for the progressive social acceptance of gay, lesbian, and transgendered people over the past 4 decades.

The DSM paradigm shift in psychiatric diagnosis

• **DSM-III.** Perhaps the most radical change in the diagnostic criteria of psychiatric disorders occurred in 1980, with introduction of DSM-III to replace DSM-I and DSM-II, which were absurdly vague, unreliable, and with poor validity.

The move toward more operational and reliable diagnostic require-

ments began with the Research Diagnostic Criteria, developed by the Department of Psychiatry at Washington University in St. Louis. DSM-III represented a complete paradigm shift in psychiatric diagnosis. Subsequent editions maintained the same methodology, with relatively modest changes. The field expects continued evolution in DSM diagnostic criteria, including the future inclusion of biomarkers, based on sound, controlled studies.

- **Recognizing PTSD.** Development of posttraumatic stress disorder (PTSD) as a diagnostic entity, and its inclusion in DSM-III, were major changes in psychiatric nosology. At last, the old terms—shell shock, battle fatigue, neurasthenia—were legitimized as a recognizable syndrome secondary to major life trauma, including war and rape. That legitimacy has instigated substantial clinical and research interest in identifying how serious psychopathology can be triggered by life events.

Pharmaceutical industry debacle

Few industries have fallen so far from grace in the eyes of psychiatric professionals and the public as the manufacturers of psychotropic drugs.

At the dawn of the psychopharmacology era (the 1950s, 1960s, and 1970s) pharmaceutical companies were respected and regarded by physicians and patients as a vital partner in health care for their discovery and development of medications to treat psychiatric disorders. That image was tarnished in the 1990s, however, with the approval and release of several atypical antipsychotics. Cutthroat competition, questionable publication methods, concealment of negative findings, and excessive spending on marketing, including FDA-approved educational programs for clinicians on efficacy, safety, and dosing, all contributed to escalating cynicism about the industry. Academic faculty who received research grants to conduct FDA-required clinical trials of new agents were painted with the same brush.

Disclosure of potential conflict of interest became a mandatory procedure at universities and for NIMH grant applicants and journal publishers. Class-action lawsuits against companies that manufacture second-generation antipsychotics—filed for lack of transparency about metabolic side effects—exacerbated the intensity of criticism and condemnation.

Although new drug development has become measurably more rigorous and ethical because of self-regulation, combined with vigorous government scrutiny and regulation, demonization of the pharmaceutical industry remains unabated. That might be the reason why several major pharmaceutical companies have abandoned research and development of psychotropic drugs. That is likely to impede progress in psychopharmacotherapeutics; after all, no other private or government entity develops drugs for patients who have a psychiatric illness. The need for such agents is great: There is *no* FDA-indicated drug for the majority of DSM-5 diagnoses.

We entrust the future to next generations

Momentous events have transformed psychiatry during the lifespan of Baby Boomers like me and many of you. Because the cohort of 80 million Baby Boomers has comprised a significant percentage of the nation's scientists, media representatives, members of the American Psychiatric Association, academicians, and community leaders over the past few decades, it is conceivable that the Baby Boomer generation helped trigger most of the transformative changes in psychiatry we have seen over the past 70 years.

I can only wonder: What direction will psychiatry take in the age of Generation X, Generation Y, and the Millennials? Only this is certain: Psychiatry will continue to evolve—long after Baby Boomers are gone.

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Is something missing?

What momentous change in psychiatry over the past 7 decades would you want added to this list? Tell me: henry.nasrallah@currentpsychiatry.com.

—Henry A. Nasrallah, MD