A global perspective on ADHD

ADHD تا حدود سه دهه پیش اختلالی بود که بیشتر مورد توجه جامعه روان پزشکان تقریبا منحصرا در امریکا بود

- **worldwide picture of ADHD, until roughly 25 years ago was far less global in scope.**
- **Prior to the 1990s, most of the reported diagnosis, treatment, and research related to ADHD occurred in the United States, where the diagnosis was originally devised and institutionalized.**

Key Differences in Diagnostic Criteria for ADHD and HKD

DSM: ADHD Diagnosis[a]	*ICD*: HKD Diagnosis
No later than 7 years	No later than 7 years
Symptoms in 1 or more dimension[b]	Symptoms in all dimensions[b]
Some impairment in at least 2 settings	Full criteria met in at least 2 settings
Comorbid conditions permissible (symptoms are not exclusively during comorbid period)	Comorbid conditions are exclusionary for diagnosis (e.g., schizophrenia and anxiety, mood, and pervasive developmental disorders)

[a] *DSM-IV* criteria are presented to align with references to continued usage of the *DSM-IV* in this volume; age of onset in the newly released *DSM-5* is no later than 12 years.

[b] Inattention, hyperactivity/impulsivity.

Implications and questions following diagnosis of ADHD globally

- **Are global prevalence estimates homogenizing great differences both across and within various countries ?**
- **How variable and valid are the *DSM*'s diagnostic criteria in various cultural settings?**
- **How viable are they in different health care systems?**
- **Are psychostimulants and related medications considered to be appropriate treatment options?**
- **Are they being over- or under prescribed, especially for children?**

- When countries begin to adopt the ADHD diagnosis, they frequently seem to integrate and apply the diagnosis in different and sometimes idiosyncratic ways.
- For example, some countries appear to adopt a “medications first” treatment strategy, whereas others adopt a “medications last” strategy, with yet others falling somewhere in between.

USA

The Emergence of ADHD

That did not occur until the 1960s in the United States

- evidence of ADHD can be traced back as early as 1845 in the characterization of Zappelphilipp (Fidgety Philip) in Heinrich Hoffmann's popular German children's book *Der Struwwel- peter* (Hoffmann 1845).
- Others point to Sir George Frederic Still's (1902) Goulstonian Lectures at the Royal College of Physicians of London in which he described conditions related to hyperactivity and impulsivity in children.
- In yet another example, the German physicians Franz Kramer and Hans Pollnow produced a report in 1932 "Über eine hyperkinetische Erkrankung im Kindesalter" ("On a Hyperkinetic Disease of Infancy").
- They described a neurological disorder, called Kramer-Pollnow syndrome, which was characterized by hyperactivity and mental retardation.
- Examples like these suggest that certain behaviors that are now associated with ADHD have been considered problematic at different points in history
- None of these cases, however, seemed to prompt widespread diagnosis and/or treatment at the time. That did not occur until the 1960s in the United States.

Some Challenges to ADHD

- ADHD diagnosis and treatment in the United States have not gone uncontested.
- ADHD has been in the public eye intermittently for decades. For example, a 1970 *Washington Post* article claimed that 10% of the 62,000 elementary school children in Omaha, Nebraska, were being treated with “behavior modification drugs to improve deportment and increase learning potential” (as quoted in Grinspoon and Singer 1973: 546).
- Although the figures were found later to be somewhat exaggerated, the piece nevertheless spurred a congressional investigation and a government-sponsored conference on treating behaviorally disturbed school children with stimulant drugs (Conrad 1976: 14).
- This attention did not lead to any restrictions on diagnosis or treatment. It did, however, raise the issue in the public sphere of “hyperactivity” and psychotropic drug treatment of school children.
- Although the diagnosis and treatment are now well accepted in the educational and medical domains, there are still critiques about “overdiagnosis” or overtreatment of children (see, e.g., Schwarz and Cohen 2013; Schwarz 2014).

Allergy argument

- In the 1970s, the allergist Ben Feingold (1974) proposed that the causes of hyperactivity were in the artificial food additives and food colors that children ingested as part of their regular diet.
- Feingold suggested that taking these additives out of children's diets would reduce hyperactive (and inattentive) behavior.
- As a compelling alternative to drug treatment, the diet received much media publicity. Although there were many personal testimonies about the success of the new diet, scientific studies of the Feingold diet were at best equivocal and most often showed little-to-no positive effect. Despite this, there are still advocates of the Feingold diet (see Smith 2011).

- The most extreme and public critics of ADHD and its treatment come from the religious and advocacy organization the Church of Scientology and its off- shoot, the Citizens Committee for Human Rights.
- The Scientologists are an avowedly anti-psychiatry organization, and in the 1980s the organization began a specifically anti-Ritalin campaign (Mieszkowski 2005).
- Led by media figures such as the Hollywood star Tom Cruise, the Scientologists have engaged in strong and sometimes misleading criticism about ADHD diagnosis and treatment (Neill 2005). Although the impact of this critique on ADHD diagnosis and treatment is probably quite small, it does keep a degree of criticism in the public eye.

- There are also numerous professional criticisms of ADHD by psychiatric critics such as Thomas Szasz (2001), Peter Breggin (2001), and others (Timimi and Leo 2009).
- These perspectives are highly critical of ADHD and its treatment, though they are neither as seemingly animated nor as public as those of the Scientologists. There have been some concerns in the United States with overdiag- nosis and treatment of ADHD (Thomas, Mitchell, and Batstra 2013).
- An article in *Scientific American* recently asked "Are Doctors Diagnosing Too Many Kids with ADHD?" (Lilienfeld and Arkowitz 2013), and a few years ago, the Public Broad- casting Service (PBS) produced a nationally broadcasted documentary entitled *Medicating Kids* that specifically raised the question *Does ADHD Exist?* (http://www.pbs.org/wgbh/pages/frontline/medicatedchild/etc/script.html).
- These kinds of critiques have led well-regarded ADHD researchers such as the psychologist Russell Barkley to express concern about "periodic inaccurate portrayal of ADHD in media reports" and "non expert doctors" who claim that ADHD does not exist (Barkley et al. 2002).
- Barkley argues that the scientific evidence overwhelmingly supports consensus that "ADHD is a valid disorder" (Barkley et al. 2002) and advocates for more, rather than less, ADHD treatment

ADHD in the Twenty-First Century

The Continuing Expansion of the ADHD Diagnosis

Alternative or Adjunct Interventions

Global Migration of ADHD

- since the 1990s, there has been an increasing migration of the ADHD diagnosis
- Increased use of ADHD medication globally
- The United States has thus historically been considered to be at the center of much of the history of ADHD diagnosis and treatment
- This is no longer the case. Both diagnosis and treatment are increasingly being applied internationally

Why Global Migration of ADHD

- the easy and widespread availability of ADHD information and checklists on the Internet
- the increasing global presence of advocacy groups
- the increasing global influence of US psychiatry
- the increased adoption of the broader *DSM-IV* (now *DSM-5*) criteria for diagnosis (e.g., as opposed to the criteria from the World Health Organization's [WHO] *International Classification of Diseases* [*ICD*])
- multinational pharmaceutical industry promoting the ADHD diagnosis and seeking new markets for its medications

CANADA

- as former Canadian Prime Minister Pierre Trudeau once famously said about Canada-US relations in general, reflective of sleeping with an elephant, in that “no matter how friendly and even-tempered is the beast . . . one is affected by every twitch and grunt”
- Given the pervasive presence of American media, products, and services available to concerned parents and educators, it is fair to state that the US-based normalization of ADHD as a common childhood disorder (Mayes, Bagwell, and Erkulwater 2009) has deeply influenced how Canadian parents, medical professionals, and educators respond to ADHD

- up until recently, the US-based Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD), which describes itself as a recognized authority on ADHD and which has sustained a strong lobbying effort toward legitimating the disorder (Conrad and Schneider 1980; Conrad 2006), has operated as many as 40 chapters in Canada (Malacrida 2003)
- Canada has long accepted the American Psychiatric Association (APA) guidelines outlined in its *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*), which includes much broader symptoms and earlier acceptable ages of identification than those outlined by the World Health Organization's (WHO) *International Classification of Diseases* (*ICD*) (Malacrida 2003).

Anti-ritalin activism

- anti-Ritalin activism originating from the United States, in particular through Peter Breggin, a prominent anti-psychiatry figure who has conducted speaking tours in Canada and whose books and website are part of the populist Canadian landscape concerning ADHD.
- During the late 1990s, several series of articles in local and national newspapers and related television media engendered and reflected a general backlash against what was seen as an alarming propensity to label children’s behavioral problems as psychiatric diag-noses and a new willingness to medicate children with psychopharmaceuticals

Rates of Diagnosis and Treatment in Canada

- ADHD rates in Canada have echoed those of the United States. In addition, much of the avail- able research on ADHD in Canada uncritically reports statistics that actually come out of the United States as though they were Canadian data. For example, Statistics Canada, the national government bureau that collects and analyzes Canadian population, educational, and medical information, issued a major re- port on mental health in Canada, using US sources and US data to explain the status of ADHD in Canada (Langlois et al. 2011).

- despite guidelines that at least superficially seem geared toward containing medication rates and producing a holistic and comprehensive set of supports for people with ADHD, the actual conditions on the ground mean that nonmedical interventions remain a poor second, while ADHD’s medicalization in Canada continues as the first—and often—the only option.

AUSTRALIA

The Emergence of ADHD in Australia

- Australia has a relatively short official history. Origi- nally inhabited by a diverse array of more than 500 Indigenous groups, the “Australia” that is widely recognized today first came into being as a British penal colony in the late 1700s.
- Over the period of the next 150 years, the Anglo- Australian population grew and diversified through several waves of European immigration, but retained its deep cultural, political, and economic ties with Britain.
- The Second World War became a turning point in this relationship. Dis- quiet over the rising death toll of Australians fighting to protect British interests in Europe, Indo-China, the Middle East, and North Africa, along with fear from the threat from Japan in the Pacific, led to a change in Australia’s economic and defense posture, resulting in a growing alliance with the United States (Lee 1992).

- From the 1950s, Australia increasingly identified with the United States—first strategically and then culturally.
- This shift also had material effects, particularly in the areas of medicine and health (Graham 2010). Since the 1970s, Australia has tended to follow the United States in mental health directions, especially in relation to a cultural preference for pharmacological treatment within a medical model of care.
- Like the United States, Australia experienced a fivefold increase in medication use for ADHD during the 1990s (Hazell, McDowell, and Walton 1996).

- there are clear restrictions on who can participate in the diagnosis and prescription of medication for treatment of ADHD in Australia.
- unlike the United States, where primary care physicians (or general practitioners) are the dominant actors (AAP 2011; Thomas, Mitchell, and Batstra 2013), ADHD diagnosis and treatment in Australia is limited to pediatricians and psychiatrists
- although medical, health, and educational professionals are strongly encouraged to refer their clients to these specialists, there is limited evidence of these groups being involved in the provision of information to support diagnostic assessment
- there is not a widespread presence of psychologists within Australian schools, which further establishes the dominance of medical specialists in child and family care
- ogether, these features perpetuate a situation in which the medical model is central to the diagnosis, treatment, and management of the behaviors that have come to be associated with ADHD in Australia, while the availability of other multimodal treatments can be inconsistent and more costly than pre- scription medication, which is subsidized through the Pharmaceutical Benefits Scheme (PBS) (

- the primacy of medical responses to ADHD in Australia. Underlying such controversy is an association between psychostimulant treatment for ADHD and lower socioeconomic status (SES) that has been identified in Australia for more than a decade
- By way of comparison, diagnosis and drug treatment of ADHD in the United States has been identified as being more prevalent among the middle classes
- Australian parents and children (irrespective of SES) are not passive receptors of medical labels (as is sometimes implied by overly structuralist renditions of medicalization perspectives; Prosser 2014).
- Some Australian studies have explored the effect of the “ADHD” label on adolescent identity development (Prosser 2008), which speaks to the ways that youth and families come to adopt, refine and use, or even reject “ADHD” labels

GERMANY

- In Germany the condition is mostly referred to as “ADHS” (Aufmerksamkeitsdefizit-/Hyperaktivitätsstörung), mirroring the English label “ADHD.”
- Adult patients with ADHD seeking medication have long been suffering from the restrictions of Germany’s drug-regulation laws, which have prevented or at least complicated access to methylphenidate treatment.
- Public discourses on ADHD in Germany have mainly been critical in nature for a long time.
- In Germany, like in many other countries, ADHD has become a synonym for medicalization, or even disease mongering.
- Imprecise and interpretable diagnostic criteria (such as “has difficulty organizing tasks”; see *DSM-IV*) led to the impression that anyone could be suffering from ADHD symptoms— more or less
- The headline “Koks für Kinder” (“Cocaine for Kids”) in the popular German magazine *FOCUS* (Bartholomäus 2002) is indicative of the critical media coverage.
- Social scientists picked up the perception of ADHD as a social problem early on and contributed to the understanding of “ADHD” as a label mainly used as a mechanism of control

- On the other hand, Groups of concerned persons, including parents, relatives, and adult patients began actively promoting ADHD in Germany and united in self-help groups and other associations
- Besides the critical public view of medicalization dynamics and the critical mass media coverage, powers of bottom-up medicalization are growing in strength and are a significant social process within the realm of ADHD.
- Current discourses on ADHD in Germany show that patients are craving for their condition to be accepted and are struggling for better access to medication

ADHD Medications as Cognitive Enhancement

ADHD Diagnosis: An Avenue toward Cognitive Enhancement?

	Acceptance of drug treatment	Repudiation of drug treatment
Acceptance of the diagnosis	Type 1: classical patient role; implicit neuro-enhancement	Type 3: classical patient role; critical of neuro-stimulants
Repudiation of the diagnosis	Type 2: self-directed patient; may include explicit neuro-enhancement	Type 4: medicalization critic; critical of both the medical labeling and neuro-stimulants

- Fukuyama (2003) once warned about the biotechnological revolution.
- He pointed out the variety of potentially dangerous forms of intervening in human nature—for example, by artificially prolonging the lifespan, genetic engineering, and the increased importance of the neurosciences and new forms of neuro- pharmacology—which would allow manipulation of emotion and behavior (Fukuyama 2003).
- More than a decade later, it can be argued that we did not enter the “Posthuman” era and that the “Consequences of the Biotechnological Revolution” haven’t been as radical as predicted
- Various types of antidepressants or stimulants such as methylphenidate or modafinil are known as potential neuro-enhancing drugs
- But these drugs are commonly used for the treatment of specific diseases.
- Critics often complain about the seemingly ever-rising number of ADHD cases.
- However, epidemiological studies on ADHD (or hyperkinetic dis- order) in Germany come to conclusions similar to those of most international studies, showing an average prevalence of approximately 5%, with boys being diagnosed around three times more often than girls

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CHILE

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