Abnormal Behaviour Across the Lifespan

PSYCH 239

Objectives

- Provide an understanding of the relationship between developmental expectations and psychopathology.
- Discuss some disorders usually first diagnosed in childhood or adolescence, and also in the senior years.
- Where relevant, discuss theoretical and treatment issues and how they may change as a function of age.
- Provide a brief overview of treatment modalities available for various disorders discussed in this section.

First things first…

- This section incorporates disorder from three distinct DSM-5 sections:
  - Neurodevelopmental Disorders
    - Usually evident in childhood, often before grade school
  - Disruptive, Impulse Control, and Conduct Disorders
    - Problems with behavioural and emotional regulation
  - Neurocognitive Disorders
    - Disruptions in previously normal cognitive ability

Abnormal Behaviour Across the Lifespan

- The psychological problems experienced by children and young people are often especially poignant in that they affect children at a time in their lives when they have relatively little ability to cope.

- Some problems of childhood prevent children from reaching their potential; others mirror the problems faced by adults.

- Finally, there are some problems unique to childhood or disorders that manifest themselves differently in children compared to adults.

Abnormal Behaviour Across the Lifespan

- What is considered normal or abnormal for children must be considered in light of developmental issues in addition to factors such as ethnicity or gender. What is acceptable behaviour at one age becomes unacceptable as the child grows older.
- Previously, children were regarded as smaller adults. Need to consider:
  - Neurodevelopmental differences
  - Learning history
  - Emotional resilience
  - Solidification of personality

NEURODEVELOPMENTAL DISORDERS

- Neurodevelopmental Disorders
  - Intellectual Disability
  - Autism Spectrum Disorders
  - Attention Deficit/Hyperactivity Disorder (ADHD)
  - Specific Learning Disorder
  - Motor Disorders
  - Communication Disorders

Historically Speaking…

- Caring for congenitally ill children is a relatively recently adopted social value.
  - Ancient Greece: Left to die, or thrown from a cliff
- Do we universally think of this as abhorrent?
  - Terminating pregnancies where testing of fetal cells has shown evidence of Down's syndrome?
  - Lower surgical and medical priority for severely disabled individuals.

Intellectual Disability Disorder

Levels of Intellectual Disability

- Based on level of *adaptive functioning*, not IQ alone.
  - Mild
  - Moderate
  - Severe
  - Profound
- Social adjustment can have a significant bearing on life success.

Causes of Intellectual Disability

- Prenatal Factors
  - Cytomegalovirus (CMV)
  - Inadequate diet during pregnancy
  - Maternal (while pregnant)
    - Drinking (FASD)
    - Valproate
    - Smoking
    - Antidepressants, antihypertensive drugs
    - Heavy metals (lead, mercury)
- Cultural-Familial causes
  - Cultural-familial intellectual impairment
- Intervention
  - Mainstreaming
  - *Diagnostic overshadowing*

Intellectual Disability Disorder

Some medical conditions that may cause of Intellectual Disability

- Down Syndrome
- Fragile X Syndrome
- Phenylketonuria (PKU)
- Smith-Lemli-Opitz Syndrome
- Tay-Sachs disease

Savant Syndrome

Savant Syndrome is a condition where a person with a neurodevelopmental disorder can perform exceptionally in a specific domain such as mathematics.

Savant Syndrome occurs in 0.06% of those with intellectual disability and is closely linked to autism spectrum disorder. It occurs about six times more often in males than females.

Autism Spectrum Disorder

Autism Spectrum Disorder:

A disorder that involves markedly impaired behaviour or functioning in multiple areas of development.

Autism Spectrum disorder becomes apparent in the first few years of life and is often associated with intellectual disability.

Autism Spectrum Disorder

Autism Spectrum Disorder:

Diagnostic Features

Theoretical Perspectives

- L. Kanner, B. Bettelheim
  - Kanner Syndrome

Tatyana Dzemileva/Shutterstock

ASD: DSM-5

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive, see text):

1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.

2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.

3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

- B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text):

- 1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
- 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat food every day).
- 3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g, strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interest).
- 4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

- C. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities or may be masked by learned strategies in later life).

- D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

- E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Autism Spectrum Disorder

Theoretical Perspectives

- O. Ivar Løvaas
  - Hypothesized inability to process more than one sensory datum at a time.
  - Leads to conditioning deficits
- Simon Baron-Cohen
  - *Theory of Mind*
- Neurodevelopmental Deficits
  - Evidence of structural abnormalities is inconsistent

Treatment

- Intensive behavioural intervention
  - Lovass (1987) 40 hours/wk x 2 years = normal IQ scores for just under half of 19 subjects.
- Social simulation (eg., *FaceSay*)

DSM-5: ADHD

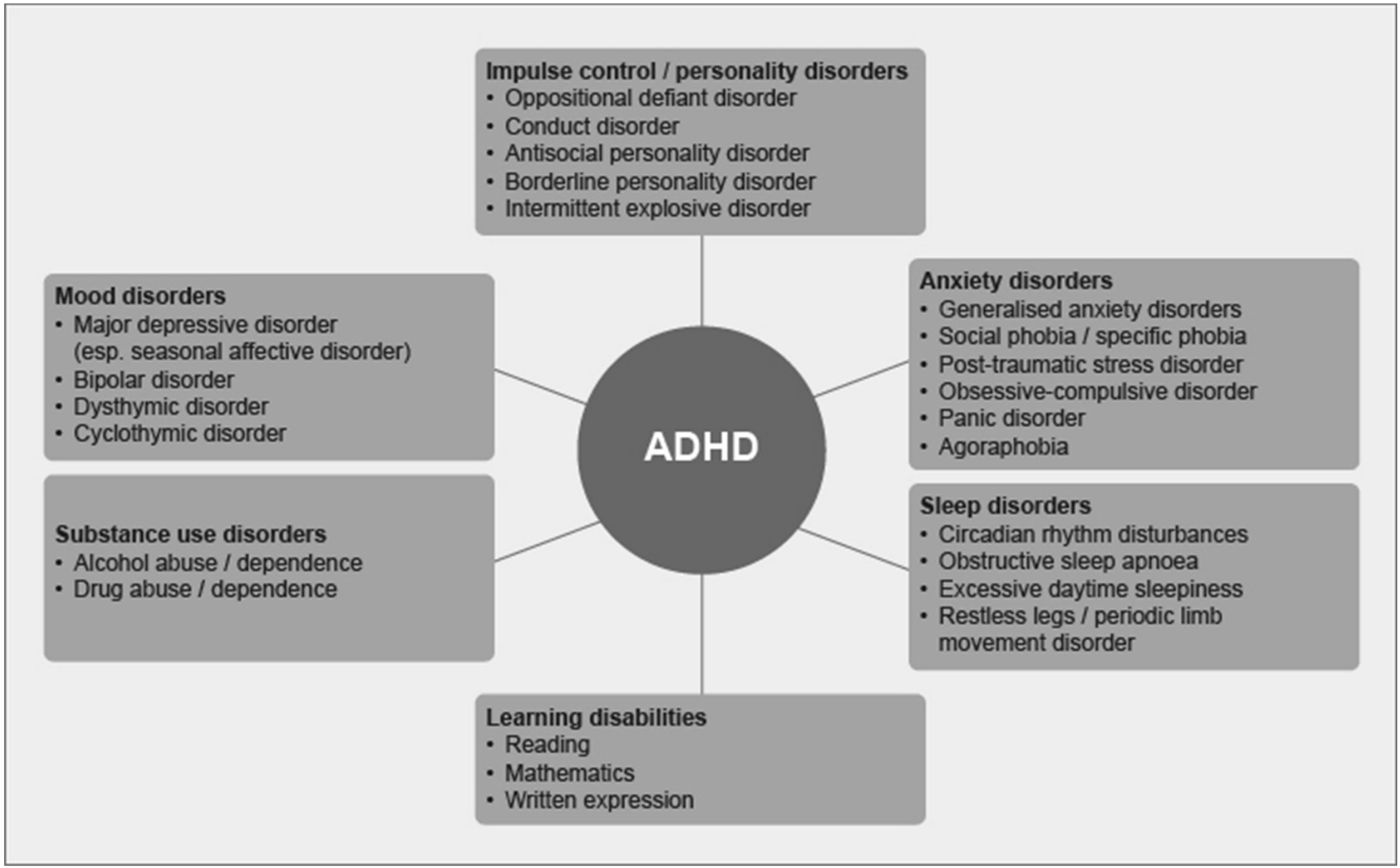
- A. Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is inappropriate for developmental level:
  - Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
  - Often has trouble keeping attention on tasks or play activities.
  - Often does not seem to listen when spoken to directly.
  - Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions).
  - Often has trouble organizing activities.
  - Often avoids, dislikes, or doesn't want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).
  - Often loses things needed for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
  - Is often easily distracted.
  - Is often forgetful in daily activities.

- B. Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level:
  - Often fidgets with hands or feet or squirms in seat when sitting still is expected.
  - Often gets up from seat when remaining in seat is expected.
  - Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
  - Often has trouble playing or doing leisure activities quietly.
  - Is often "on the go" or often acts as if "driven by a motor".
  - Often talks excessively.
  - Impulsivity
  - Often blurts out answers before questions have been finished.
  - Often has trouble waiting one's turn.
  - Often interrupts or intrudes on others (e.g., butts into conversations or games).

ADHD

- ADHD, *Combined Type*: if both criteria A and B are met for the past 6 months
- ADHD, *Predominantly Inattentive Type*: if criterion A is met but criterion IB is not met for the past six months
- ADHD, *Predominantly Hyperactive-Impulsive Type*: if Criterion B is met but Criterion A is not met for the past six months.
- Also specify level of severity based on number of signs present:
  - Mild
  - Moderate
  - Severe

ADHD *Comorbidities*



https://adhd-institute.com/burden-of-adhd/epidemiology/comorbidities/

ADHD

- Theoretical Perspectives
  - Genetic and environmental
  - Prenatal risk factors: Drinking, smoking, antidepressants, antihypertensive drugs, poor nutrition, heavy metals (lead, mercury)
- Treatment
  - Stimulants
  - Behavior therapy (for motoric excesses)
  - EEG biofeedback

Specific Learning Disorders

Learning Disorder:

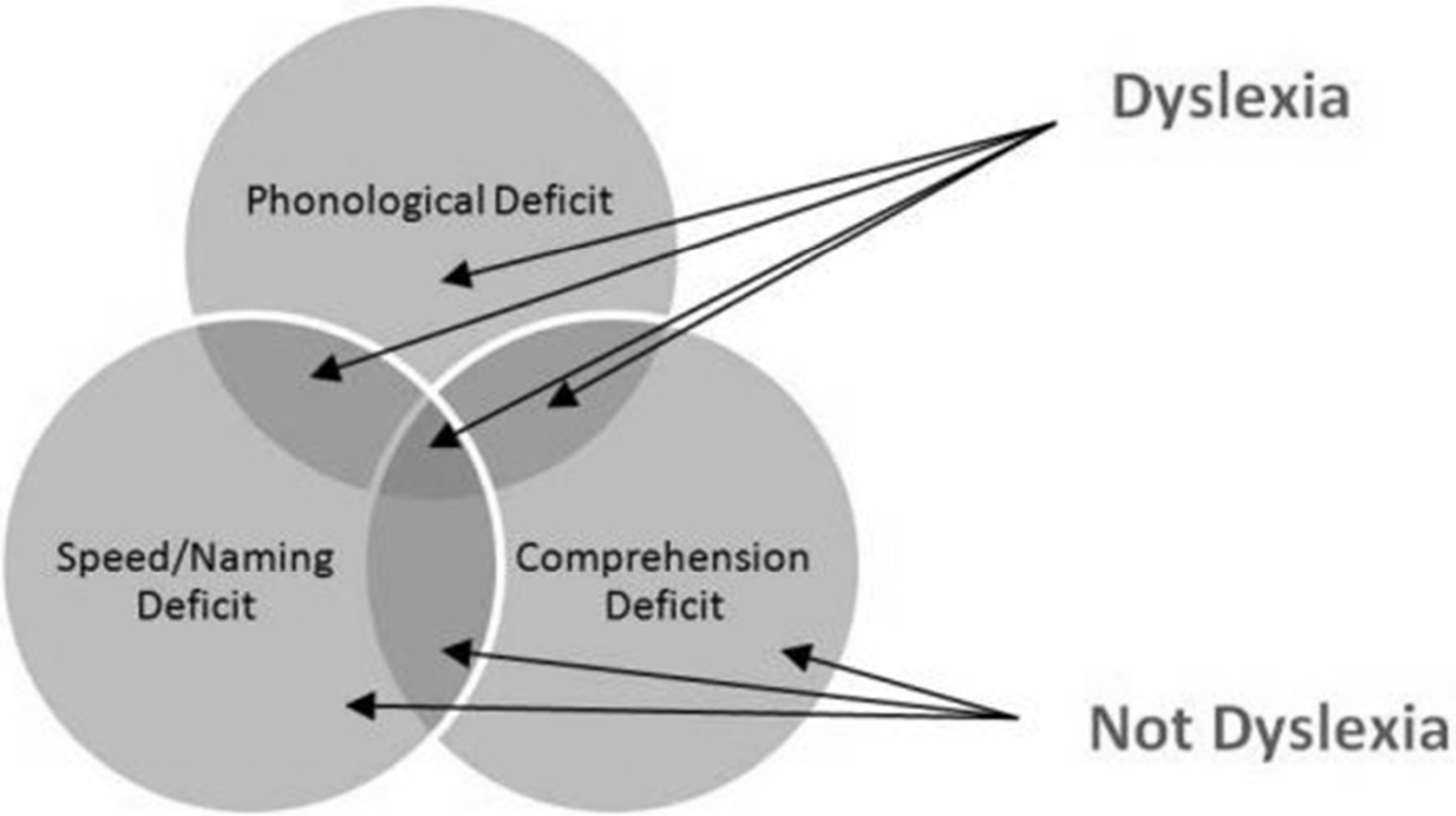
Noted deficiency in a specific learning ability.

Dyslexia:

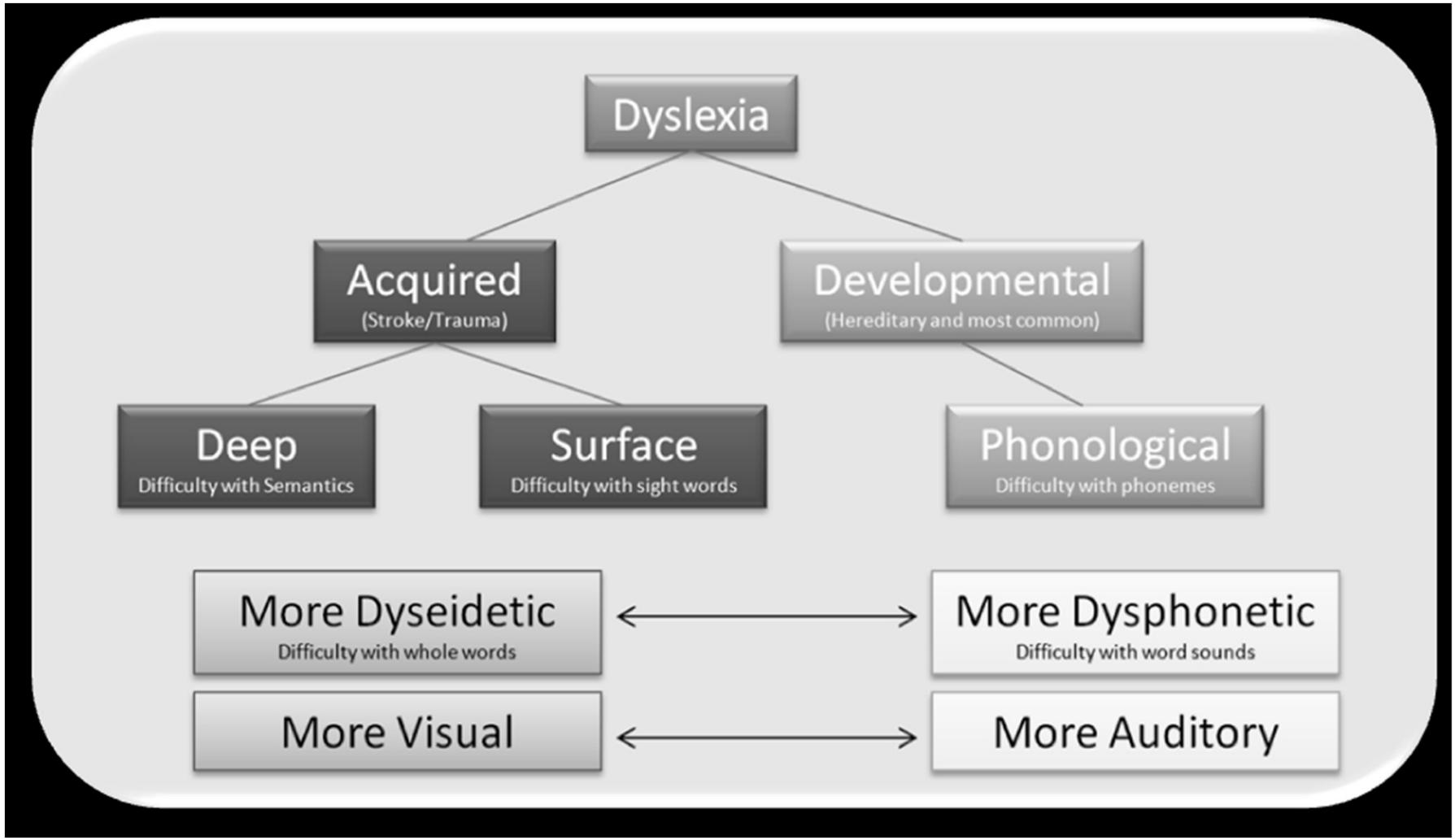
A type of learning disorder characterized by impaired reading ability and may involve difficulty with the alphabet or spelling

- Problems differentiating similar-looking letters (e, c, o **OR** p, d, q)
- Words may appear reversed or blurred.
- Problems identifying speech sounds and learning how they relate to letters and words (decoding).
- Affects areas of the brain that process language

Dyslexia vs other reading disorders



Understanding variations in dyslexia



Specific Learning Disorders

Specific Learning Disorders:

- Impairment in mathematics
- Impairment of written expression
- Impairment in reading

Specific Learning Disorders

Theoretical Perspectives

- Neurobiological
- Genetic factors

Intervention

- Individual Education Plan
  - Specific skill instruction
  - Accommodations
  - Compensatory strategies
  - Self-advocacy skills

Specific Learning Disorders

Genetics & Dyslexia:

People whose parents have dyslexia are at greater risk themselves.

Higher rates of dyslexia are found between identical (MZ) than fraternal (DZ) twins: 70% versus 40%.

Genes may play a role in causing defects in the brain circuitry involved in reading.

DISRUPTIVE, IMPULSE CONTROL, AND CONDUCT DISORDERS

- Disruptive, Impulse Control, and Conduct Disorders
  - ODD
  - Intermittent Explosive Disorder
  - Conduct Disorder (Antisocial Personality Disorder)
  - Pyromania
  - Kleptomania

ODD

Oppositional Defiant Disorder (ODD)

- Theoretical Perspectives in ODD
  - Ineffective parenting: Inadvertent reinforcement of difficult, demanding behavior.
- Treatment
  - Ecological theory
  - Multisystemic Therapy (MST)
  - PMT (Russel Barkley, Alan Kazdin)

DSM-5: ODD

A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness lasting at least 6 months as evidenced by at least four symptoms from any of the following categories, and exhibited during interaction with at least one individual who is not a sibling.

Angry/Irritable Mood

- Often loses temper.
- Is often touchy or easily annoyed.
- Is often angry and resentful.

Argumentative/Defiant Behavior

- Often argues with authority figures or, for children and adolescents, with adults.
- Often actively defies or refuses to comply with requests from authority figures or with rules.
- Often deliberately annoys others.
- Often blames others for his or her mistakes or misbehavior.

Vindictiveness

- Has been spiteful or vindictive at least twice within the past 6 months

Intermittent Explosive Disorder

- Impulsive or anger-based aggressive outbursts that begin rapidly and have very little build-up.
- Outbursts often last fewer than 30 minutes and are provoked by minor actions of someone close, often a family member or friend.
- Aggressive episodes are generally impulsive and/or based in anger rather than premeditated.
- They typically occur with significant distress or psychosocial functional impairment.
- The person is at least 6 years of age (or developmentally similar).

Intermittent Explosive Disorder

- Verbal aggression like temper tantrums, tirades, arguments or fights; or physical aggression toward people, animals, or property.
- This aggression must occur, on average, twice per week for three months.
- The physical aggression does not damage or destroy property, nor does it physically injure people or animals.

or

- Within 12 months, three behavioral outbursts resulting in:
- Damage or destruction of property, and/or
- Physical assault that physically injures people or animals.

DSM-5: Conduct Disorder

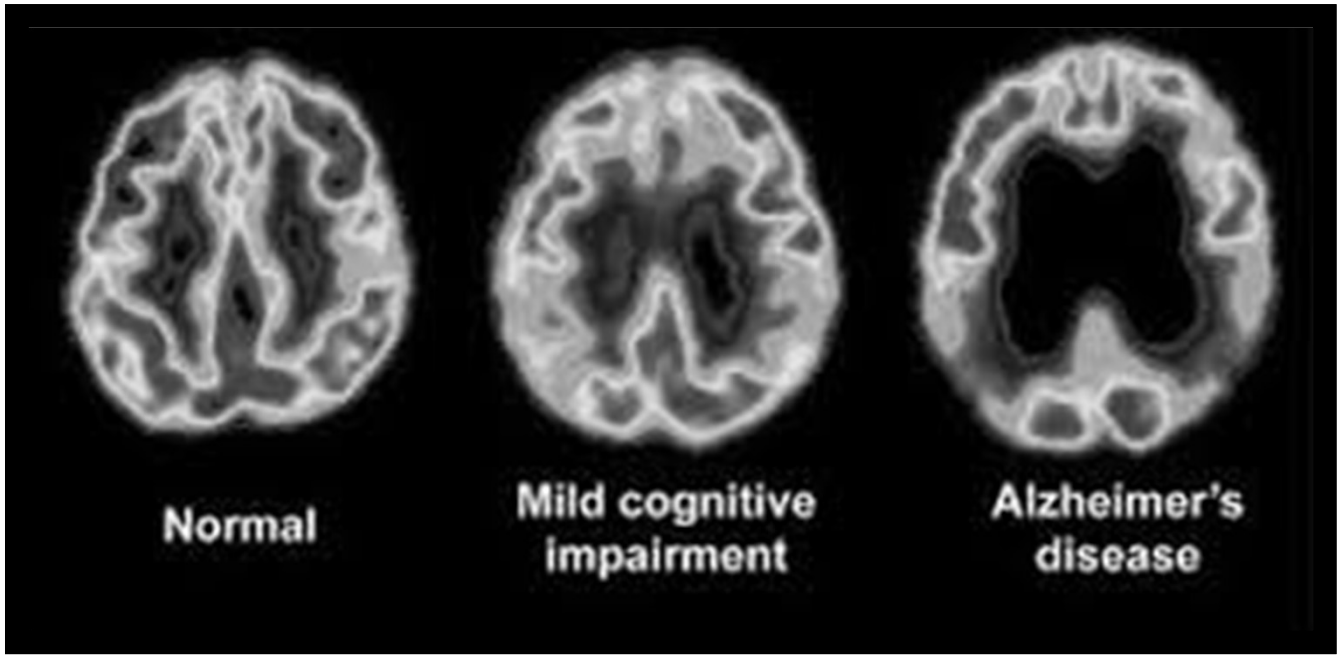
- A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:
- Aggression to people and animals
  - (1) often bullies, threatens, or intimidates others
  - (2) often initiates physical fights
  - (3) has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)
  - (4) has been physically cruel to people
  - (5) has been physically cruel to animals
  - (6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
  - (7) has forced someone into sexual activity

- Destruction of property
  - (8) has deliberately engaged in fire setting with the intention of causing serious damage
  - (9) has deliberately destroyed others' property (other than by fire setting)
- Deceitfulness or theft
  - (10) has broken into someone else's house, building, or car
  - (11) often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)
  - (12) has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)
- Serious violations of rules
  - (13) often stays out at night despite parental prohibitions, beginning before age 13 years
  - (14) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)
  - (15) is often truant from school, beginning before age 13 years

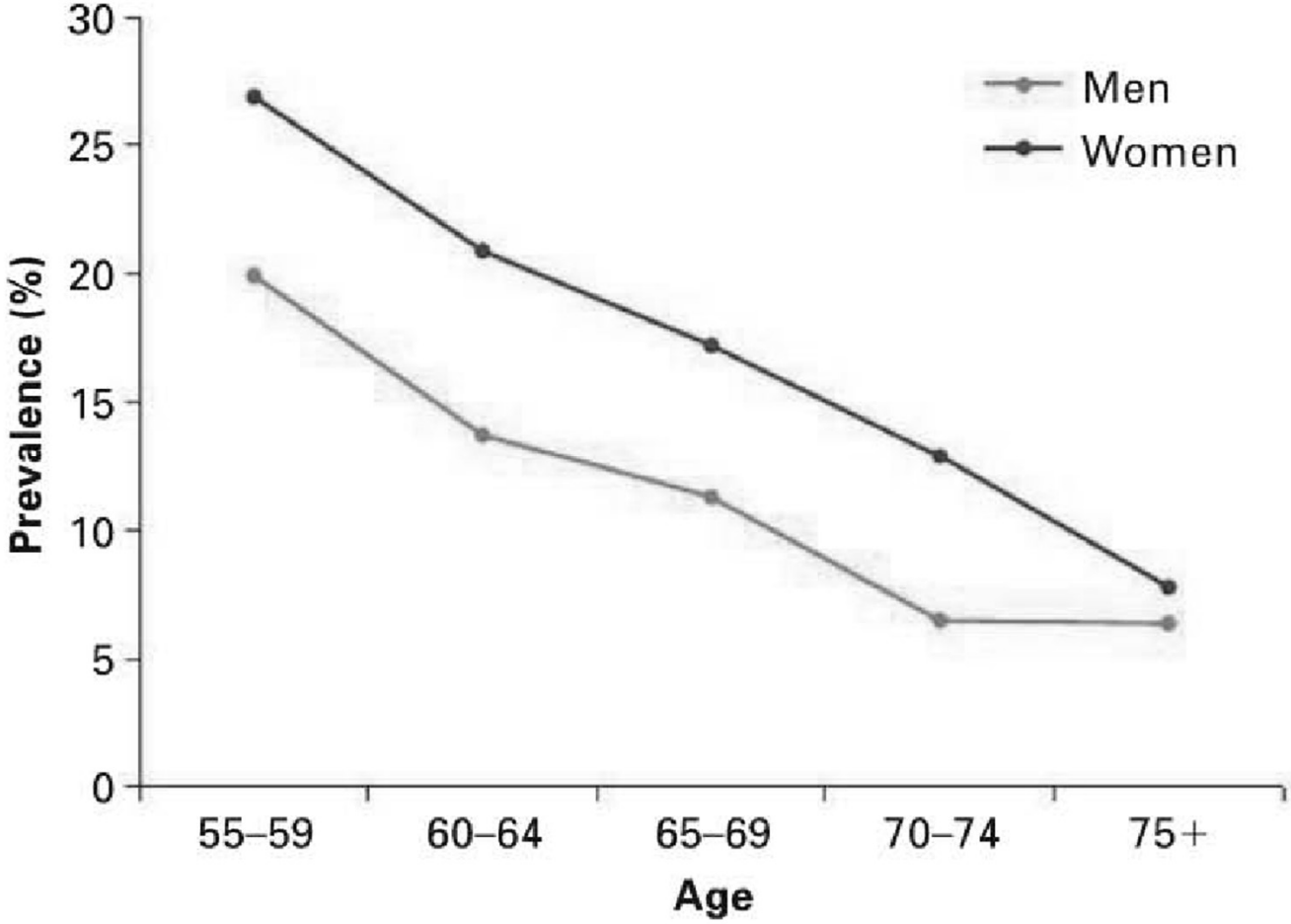
  - Differentials include ODD and Antisocial Personality Disorder
- Most effective treatments are delivered in a structured setting and include:
  - Continued education
  - Anger management
  - Victim empathy training
  - Relapse prevention
  - Substance abuse desistence
  - Family therapy
- Individual psychotherapy of little use.
- Meds of limited value but some possible success with mood stabilizers & neuleptics, but not for frankly antisocial kids.

NEUROCOGNITIVE DISORDERS

- Major and Mild Neurocognitive Disorders
  - Delirium
  - Dementia
  - Traumatic Brain Injury



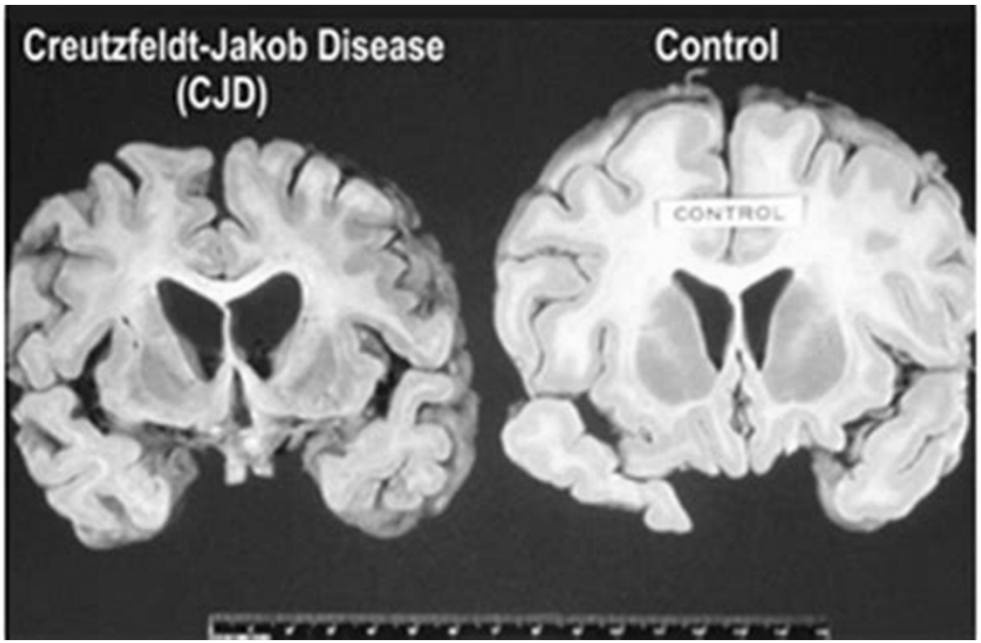
Prevalence of Mental Disorders in Adulthood

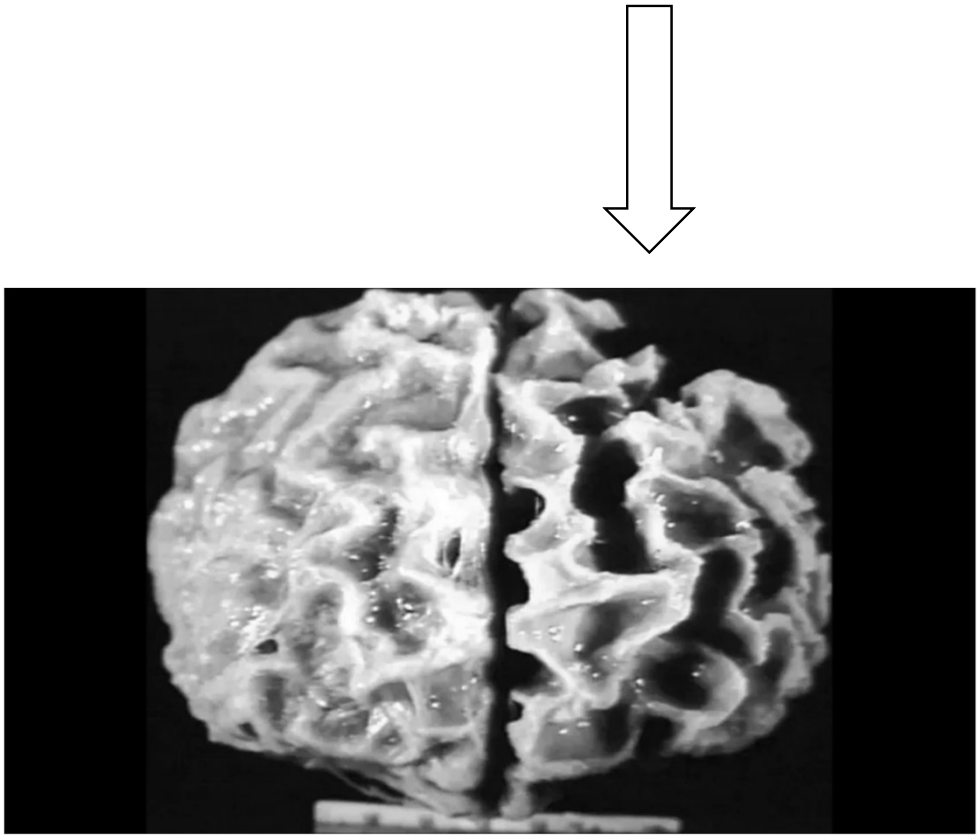


Streiner et al (2006)

- Need to differentiate on the basis of severity:
- *Major*
  - Significant cognitive decline
  - Interference with independence in daily activities
- *Mild*
  - Moderate cognitive decline
  - Still capable of functioning with independence
- Several type specifiers
  - Alzheimer's disease
  - Frontotemporal lobar degeneration (eg., Pick's)
  - Lewy body disease
  - Vascular disease
  - TBI
  - Substance/medication use
  - Prion disease (**PR**oteinacious **IN**fectious particle) (Jacob-Creutzfeldt)

Prion Diseased Brain vs Control

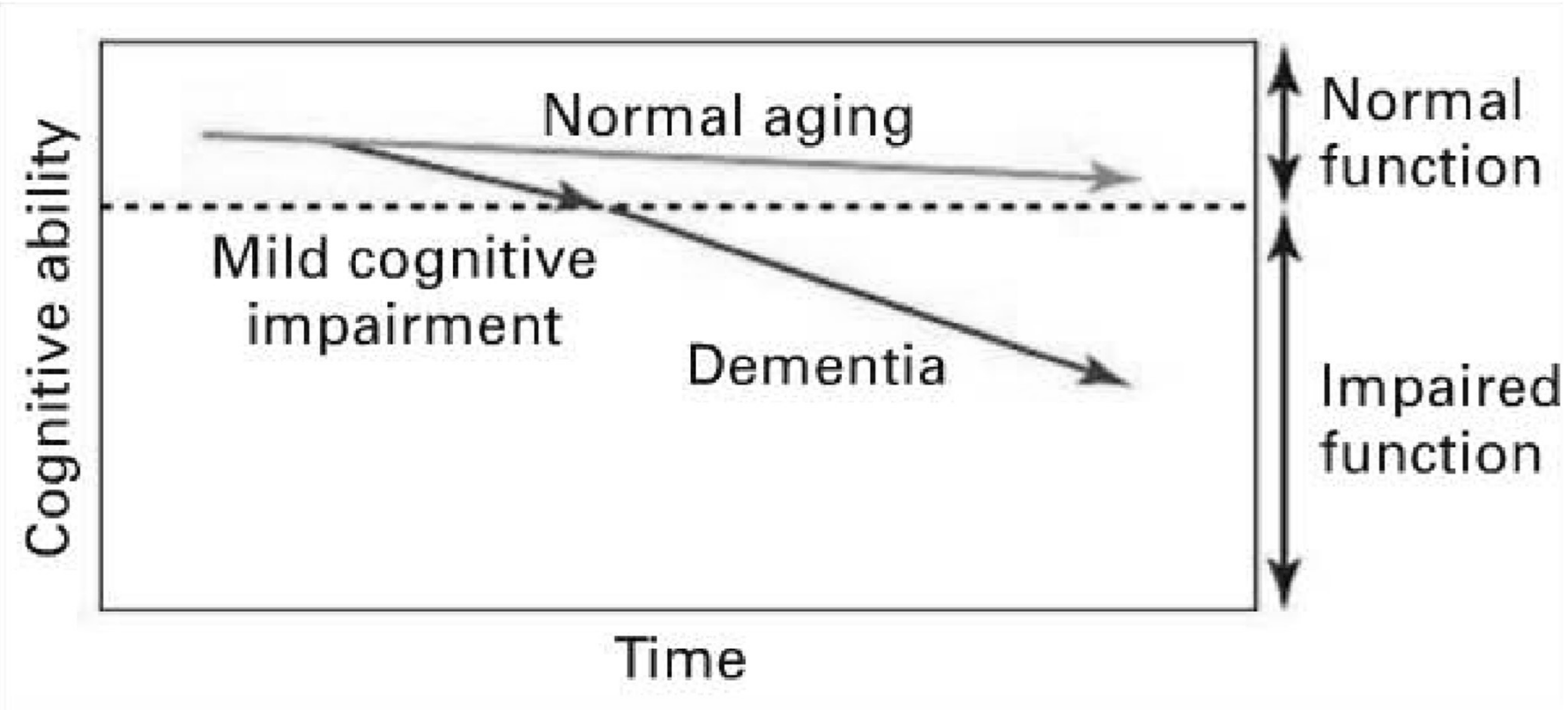




- Note “Spongiform” presentation

Age-related cognitive decline

(From Dozois, pg 435)



Delirium

- May produce dementia-like impairment
  - Disturbances in orientation, memory, concentration, perception. Reduced/clouded consciousness.
- Often attributable to medical illness (eg., bladder infections)
  - Will generally clear within a few days of underlying physical illness resolving
  - Therefore always check white cell count and assess for other symptoms & signs of infection
  - Anywhere from 10 to 50% of seniors admitted to hospital for surgery will have, or develop, delirium
- Onset tends to be rapid (i.e., hours to days)
- AD and vascular dementias much more gradual (see next slide).

Dementia

Dementia: A form of cognitive impairment involving generalized progressive deficits in a person's memory and learning of new information, ability to communicate, judgment, and motor coordination.

Alzheimer's disease (AD): Fatal neurodegenerative disorder that accounts for the majority of dementia cases.

- First line of Tx: Cholinesterase inhibitors
- Conclusively diagnosed posthumously
  - Plaques, neurofibrillary tangles, cell death, substantial cortical atrophy (see next slide)
- Neuropsych testing very sensitive and specific

Vascular Dementias: Best addressed by controlling cardiovascular risk factors (BP, Diabetes, Smoking, Cholesterol)

Step-wise decrement in functioning

Tends to show up with diagnostic imaging (structure, not function)

Mixed: Co-occurrence of both forms

Image source: BBC