



Optimizing ADHD Treatment: Subtypes & Comorbidity

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Diagnosis and Treatment. New York: Guilford.*

(Info@guilford.com or 800-365-7006)

Disclosure

- ✱ Retirement: State of Massachusetts
- ✱ Salary: Medical U of South Carolina (to 6/1/05)
- ✱ Speaker/Consultant:
 - ✱ Eli Lilly Co. (Strattera)
 - ✱ Shire Richwood (Adderall)
 - ✱ McNeil and Janssen-Ortho (Concerta)
 - ✱ Pfizer, Inc.
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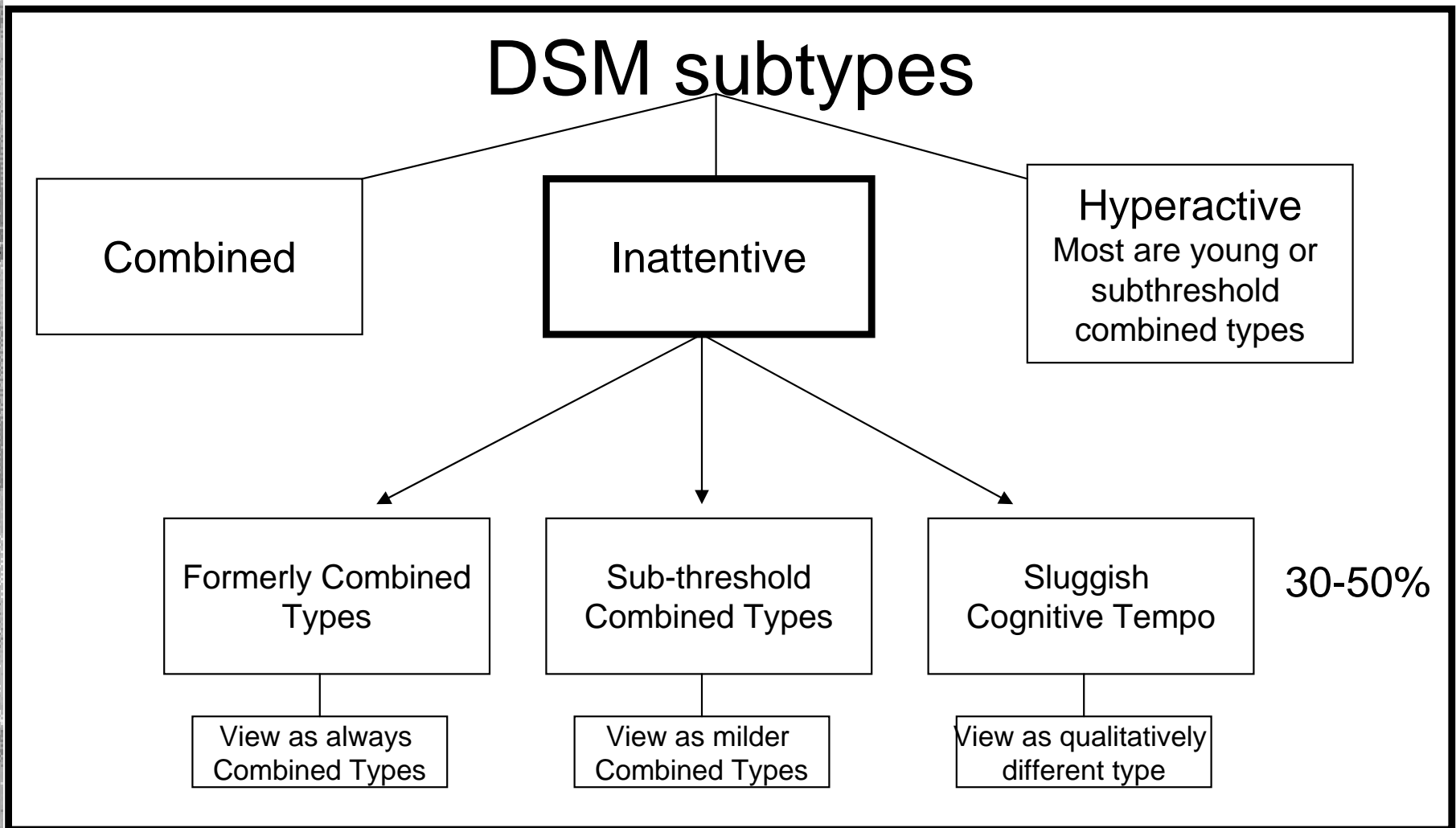
Consensus Definition

- ✱ A Developmental Disorder of:
 - ✱ Inattention and/or
 - ✱ Hyperactivity-Impulsivity
 - ✱ These are largely delays in rate but can be acquired in some cases (20-25%?)
- ✱ Developmentally Inappropriate Levels of Symptoms
- ✱ Childhood Onset (Symptoms - Impairment)
- ✱ Cross-setting Occurrence of Symptoms
- ✱ Significant Impairment in Major Life Activities
- ✱ Exclusion of Other Disorders (MR, PDD ??, Psychosis)

Unresolved Problems with DSM-IV Criteria

- ✱ Inattention list may be misnamed
 - ✱ Its likely executive functioning, e.g. Working memory
- ✱ Symptoms are not developmentally referenced
 - ✱ Need more appropriate items for adults
- ✱ Cutoffs are not developmentally referenced
 - ✱ May have to adjust thresholds if > 16 or < 4 yrs.
- ✱ Cutoffs not sex-referenced (lower for girls)
- ✱ Duration may be too short for preschoolers: try 1 yr.
- ✱ Age of onset of 7 has no validity (childhood)
- ✱ Developmental deviance undefined (93%??)
- ✱ Implies need for parent-teacher agreement
 - ✱ Blend reports and use history of cross setting impairment
- ✱ No requirement for corroboration by others (adults)

Diagram of subtypes & subsets



ADHD - Inattentive Type

A Subset May Be A New Disorder

- ★ Known as Sluggish Cognitive Tempo (SCT)
- ★ Comprise 30-50% of Inattentive Type cases
- ★ Common Presenting Symptoms:
 - ★ Daydreaming, Spacey, Stares
 - ★ Hypoactive, Slow moving, Lethargic, Sluggish
 - ★ Easily Confused, Mentally “Foggy”
- ★ Slow, Error Prone Information Processing
- ★ Poor Focused or Selective Attention
- ★ Erratic Retrieval - Long-Term Memory (?)
- ★ Socially Reticent or Withdrawn

ADHD Inattentive Type with SCT

- ✱ Comorbidity
 - ✱ Rarely show Aggression or ODD/CD
- ✱ Not Impulsive (By Definition)
- ✱ Greater risk of anxiety and possibly depression
 - ✱ If so, consider atomoxetine
- ✱ Less Likely to Have a Clinically Impressive Response to Stimulants (only a few studies)
 - ✱ (65% improve but only 20% show clinical response)
- ✱ Possibly Greater Family History of Anxiety Disorders and LD (?)
- ✱ Better response to social skills training than ADHD cases are likely to show
- ✱ More responsive to behavioral treatments (??)
- ✱ More responsive to cognitive therapy (??)

Comorbid DSM-IV Disorders

- ✱ **Oppositional Defiant Disorder (40-80%; odds ratio of 11)**
 - ✱ ADHD contributes to and likely causes ODD
 - ✱ Some ODD is related to disrupted parenting
 - ✱ Which can arise from parental ADHD
 - ✱ Predicts persistence of ADHD
- ✱ **Conduct Disorder (20-56%)/ Psychopathy (20%)**
 - ✱ If starts early, represents a unique family subtype
 - ✱ More severe, more persistent antisocial behavior
 - ✱ Worse family psychopathology
 - ✱ Less responsive to treatment than late onset
 - ✱ If starts late (>12), more related to social disadvantage, family disruption, & deviant peers
 - ✱ Father desertion, parent divorce more common
 - ✱ Major depression more likely to co-exist
 - ✱ School drop out and teen pregnancy more likely

More Comorbidities

- ✱ Anxiety Disorders (10-40%) (odds ratio = 3)
 - ✱ Related in part to poor emotion regulation
 - ✱ But some legitimate anxiety disorders are likely
 - ✱ Most common are simple phobias or separation anxiety; GAD becomes more common with age
 - ✱ Often show lower levels of impulsiveness (better course & outcomes?)
 - ✱ Anxiety disorders more likely in parents and family
- ✱ Major Depression (0-45%; 27% by age 20)
 - ✱ Likely genetic linkage to ADHD
 - ✱ Also related to presence of CD in child & family
 - ✱ Often manifest low self-esteem in childhood
 - ✱ MDD onset may not be until adolescence or later
- ✱ Bipolar Disorder (0-27%; likely 6-10% max.)
 - ✱ Not documented in any follow-up studies to date
 - ✱ Some cases are misdiagnosed (ADHD/ODD)
 - ✱ Requires substitution of severe irritability for mania and chronic for episodic course
 - ✱ Significant family history of bipolar disorder
 - ✱ Probably a one-way comorbidity (like Tourette Syndrome)

More Comorbidities

- ✱ Tic disorders
 - ✱ 10-15% for simple tics; TS is rare
 - ✱ TS shows one-way comorbidity
 - ✱ <2% of ADHD, but ADHD occurs in 50-80% of TS
 - ✱ ADHD is often most impairing disorder in TS
- ✱ OCD (rare, 3-4% of adult cases)
 - ✱ More common in TS cases or TS families
 - ✱ Risk increases slightly with age
- ✱ Sleep disorders (30-56%)
 - ✱ mainly delayed onset and greater night waking leading to shorter sleep time
 - ✱ More activity during sleep
 - ✱ May exacerbate attention problems in school

Comorbidity Affects Treatment Options in Mixed ADHD Cases

Oppositional Defiant Disorder:

- ✱ Both stimulants and ATX reduce it markedly
- ✱ Often requires adjunctive parent training in behavior management methods
 - ✱ 60-75% successful for children
 - ✱ 25-35% treatment response after 13+ yrs. of age
- ✱ May need to add problem-solving communication training after age 14 years
- ✱ Severely explosive anger may require use of atypical antipsychotics or antihypertensives
 - ✱ (check for childhood bipolar disorder)

Conduct Disorder

- ✱ Stimulants and ATX reduce aggressive behavior and antisocial acts but stimulants may work more rapidly to gain case control
- ✱ Mood stabilizers, atypicals, or antihypertensives may be needed for highly aggressive/explosive cases
- ✱ Parent and family interventions often required
 - ✱ Problem-solving, communication training
 - ✱ Multi-systemic therapy where available
 - ✱ Family relocation to better neighborhoods
- ✱ Avoid group treatment formats due to deviancy training by aggressive peers
- ✱ Involvement of juvenile justice agencies likely

Anxiety Disorders

- ✱ More responsive to behavioral therapies
- ✱ May respond better to social skills training (and possibly cognitive therapies)
- ✱ Stimulants can exacerbate anxiety
 - ✱ Studies are conflicting – 7 say it can but MTA study did not find this effect
- ✱ Atomoxetine (ATX) reduces anxiety
 - ✱ Effect Size = .3-.5
- ✱ Family counseling may be required to limit family setting induction of anxiety

Major Depressive Disorder

Use ADHD drug first if:

- ✱ ADHD is chief complaint
- ✱ ADHD symptoms are more disabling
- ✱ MDD is mild: No current functional impairment from depression
- ✱ Neuro-vegetative signs are mild
- ✱ ADHD symptoms clearly preceded MDD symptoms

Start with Antidepressant first if:

- ✱ Clear History of non-response to ADHD drugs
- ✱ Prominent neuro-vegetative signs or health is compromised
- ✱ MDD symptoms are chief present complaint
- ✱ ADHD symptoms are mild, late onset, or coincident with MDD onset.
- ✱ Suicidal/Psychotic

More on MDD

- ✱ May require mixed ADHD/SSRI therapy
- ✱ May need cognitive-behavioral therapy
- ✱ In parent training programs, use a “go slow” approach to punishment contingencies (e.g., time outs, etc.) so as not to contribute to depressive cognitive schemas (self-statements)
 - ✱ start with all reward programs initially until MDD symptoms lift then introduce mild, selective punishments.

Childhood Bipolar Disorder

- ✱ Requires poly-pharmaceutical management for long-term (mood stabilizers, atypicals, anticonvulsants likely)
- ✱ Often require periodic hospitalization for safety (suicidality or violence) and stabilization
- ✱ Medical management of bipolarity should be done first before managing ADHD symptoms with ADHD drugs
- ✱ Consider all-reward or non-confrontational parent training programs
- ✱ Interventions are more likely to be focused on parental coping with explosive episodes rather than remediation of disruptive behavior
- ✱ Counsel parents on stress management; ADHD/BPD cases have highest rates of physical abuse and PTSD of all ADHD cases
- ✱ Special education (ED) programs are likely
- ✱ Adolescent or adult SUDs are likely and require management

Tic disorders

- ✱ If mild or episodic, require no treatment
- ✱ Stimulants may exacerbate tics
- ✱ ATX does not adversely affect tics
- ✱ If tics or TS are socially disabling, consider behavior therapies
 - ✱ Massed practice, stress management
- ✱ If TS is as or more disabling than ADHD, medically manage it first
 - ✱ (haloperidol, atypicals, antihypertensives)

Sleep Disorders

- ✱ If severe, consider polysomnograms at a sleep lab
- ✱ Treating sleep disorder may improve attention at school
- ✱ Stimulants may cause insomnia (30-54% of cases); take care not to worsen problems
- ✱ Consider ATX - no adverse affect on sleep onset
- ✱ Advise parents to transition from highly stimulating activities to lesser ones before bedtime
- ✱ Keep low lighting on in room with background sounds (music)
- ✱ Antihypertensive, tricyclic, or chlorhydrate may be needed for short periods to induce sleep and re-establish new sleep-wake cycle



Choosing Medications: Patient Characteristics

- ✱ No need for urgent drug response in severe disruptive cases
- ✱ Comorbid anxiety/depression
- ✱ Comorbid tic disorders
- ✱ Pre-existing bedtime or morning behavior problems
- ✱ Prior history of drug dependence or abuse
- ✱ Adolescents or college students where concern is recreational misuse or diversion



Issues Related to Stimulants

- ✱ Old cases unresponsive to stimulants
- ✱ Adverse responses to stimulants
- ✱ Significant sleep problems from stimulants
- ✱ Significant morning behavior problems from stimulants
- ✱ Significant appetite suppression from stimulants
- ✱ Significant blunting or constriction of normal affect from stimulants (withdrawn, automaton-like affect)