

DSM-5: OPTIONS BEING CONSIDERED FOR ADHD

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I. EXISTING ADHD DIAGNOSIS (DSM-IV)

A. Either 1 (inattention) or 2 (hyperactivity-impulsivity):

- (1) **Inattention**: six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
 - (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
 - (b) often has difficulty sustaining attention in tasks or play activities
 - (c) often does not seem to listen when spoken to directly
 - (d) 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)
 - (e) often has difficulty organizing tasks and activities
 - (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
 - (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
 - (h) is often easily distracted by extraneous stimuli
 - (i) is often forgetful in daily activities
- (2) **Hyperactivity-impulsivity**: six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive inconsistent with developmental level:

Hyperactivity

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often "on the go" or often acts as if "driven by a motor"
- (f) often talks excessively

Impulsivity

- (g) often blurts out answers before questions have been completed
- (h) often has difficulty awaiting turn
- (i) often interrupts or intrudes on others (e.g., butts into conversations or games)

- B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
- C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
- D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
- E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

	CRITERIA LISTED	CRITERIA NEEDED FOR DIFFERENT SUBTYPES	
		<i>Inattention</i>	<i>Hyperactivity-Impulsivity</i>
<i>Combined</i>	18	6	6
<i>Predominantly Inattentive (PI)</i>	9	6	0–5*
<i>Predominantly Hyperactive (PH)</i>	9	0–5*	6

*No more than 5 allowed.

II. SOME CRITICISMS OF DSM-IV ADHD

- A. Subtypes are unstable over time.
- B. Some critics view inattention (I) and hyperactivity-impulsivity (HI) as separate elements within a complex disorder. However, the structure of the subtypes (that include a mixture of both HI and I) does not reflect that. Others view I and HI as arbitrarily divided elements of a continuous-trait dimension. The current subtype structure offends both schools of criticism.
- C. Predominantly inattentive ADHD is one of the most frequently used diagnoses in very large samples of treated children. Many of these children show few, if any, manifestations of hyperactivity. However, the current subtype structure does not accurately allow for purely inattentive children.
- D. The existence of subtype entities lends weight to their being “real,” although evidence to support their differentiation in nature (as defined in the DSM-IV) is limited.
- E. The representation of hyperactivity, inattention, and impulsivity in the criterion set is uneven and, thus, differentially weights some features over others. Impulsivity is underrepresented, and inattention is overrepresented.
- F. Subtype organization leads to threshold artifacts, e.g., ten criteria may be present (five in inattention and five in hyperactivity), and the child would not be eligible for a diagnosis.
- G. Certain manifestations of adult ADHD are not well represented in the criteria, including the decline in the number of criteria with age without a reduction in impairment.
- H. Age of onset was set arbitrarily and there are many reports of cases with an onset after age 7.
- I. Criteria are sparsely described, and this enhances criterion variance, which is a major problem in everyday use.
- J. The large number of criteria is difficult for clinicians to remember.

III. OPTIONS PROPOSED

A. General Structure

- Option 1.** *Existing structure (3 subtypes with similar codes for combined [C] and predominantly hyperactive [PH] and a separate code for predominantly inattentive [PI]).* Text will place more emphasis on the fact that diagnosis is a current-status (last six months) diagnosis.
- Option 2.** *Existing structure without subtypes.* A single diagnostic code would embrace predominantly inattentive (PI), predominantly hyperactive (PH), and combined (C) subtypes. Guidelines will be provided on how to use hyperactivity/impulsivity and inattention criteria to designate behavior-specific dimension scores.
- Option 3.** *Replace existing structure with “Combined ADHD” only.* PI and PH would be discontinued.

B. Options for Dealing with Attention-Deficit without Hyperactivity

Option 1. *No change, i.e., “Predominantly Inattentive” subtype with separate code, allowing up to 5 HI criteria.*

PROS

- a. Criteria for PI are well recognized and are used in many instruments. The diagnosis is used frequently.
- b. Empirical data have not defined the characteristics of PI beyond the existing criteria, but secondary data analyses could be conducted to examine these.
- c. Inattention can result from, and be a feature of, many disorders. The inclusion of HA items could have the effect of reducing heterogeneity.

CONS

- a. Clinical observations suggest inattention often occurs in the absence of hyperactivity.
- b. Use of distinctive diagnostic code suggests a degree of validity that some believe has not yet been demonstrated.

Option 2. *Redefine “Restrictive PI” (RPI) with limited presence of HI.* HI criteria limited to no more than 2 currently present HI criteria and no past history of HI. *Will share the same diagnostic code* with C, PI, and PH, thus increasing the number of ADHD subtypes to 4.

PROS

- a. Provides a descriptive name for a disorder with little or no hyperactivity.
- b. Few empirical data available to support the diagnosis, but high level of use suggests that the inattention diagnosis meets a clinical need.
- c. Heuristic value—will promote research.
- d. Recognizes absence of empirical support for a distinctive disorder by not assigning a new diagnostic code.
- e. Allowing small number of HI criteria to give it an intermediate status.

CON

Lack of code differentiation will make it difficult to track usage.

Option 3. *New diagnosis of “Attention-Deficit Disorder” with its own diagnostic code (see below).* Identical criteria to those used for predominantly inattentive subtype. However, none of the hyperactivity-impulsivity symptoms can be used to meet the diagnostic criterion.

- (1) Inattention: six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
 - (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
 - (b) often has difficulty sustaining attention in tasks or play activities
 - (c) often does not seem to listen when spoken to directly
 - (d) 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)
 - (e) often has difficulty organizing tasks and activities
 - (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
 - (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
 - (h) is often easily distracted by extraneous stimuli
 - (i) is often forgetful in daily activities

PROS

- a. The name of the disorder will be more acceptable for children without Hyperactivity. (Options 1 or 2).
- b. Heuristic value.
- c. Distinctive code will allow tracking.
- d. High level of use suggests that inattention diagnosis meets clinical needs.

CONS

- a. Will require reconsideration of exclusionary diagnoses.
- b. Little empirical or experimental data available to define pathology of this diagnosis.
- c. Will require recalibration of diagnostic threshold possible from existing data sets.
- d. Will require new severity scale.
- e. Placement in meta-structure needs reconsideration. This is not a disruptive disorder.

C. Number, Content, and Distribution of Criteria

Option 1. No change in number, content, or distribution among types.

PRO

Criteria are now well-recognized, incorporated into many existing instruments and tests.

CONS

- a. Uneven representation of different elements, with over-representation of attention and under-representation of impulsivity, differentially weighting those aspects of the diagnosis.
- b. Does not correct threshold artifacts(See Section II, Problem F above).

Option 2. Increase total count by adding 4 new impulsivity criteria (listed below).

The following new criteria would be applied to all ages:

- a. *Often acts without thinking (e.g., often starts tasks without adequate preparation, such as reading or listening to instructions, jumps into activities, speaks out without considering consequences; makes important decisions on the spur of the moment, such as buying items, quitting a job suddenly, breaking up with friend).*
- b. *Is often impatient (e.g., grabs things instead of asking, wants others to move faster, wants people to get to the point, often speeds while driving, cuts into traffic to go faster than others).*
- c. *Often rushes through activities or tasks, is fast paced (e.g., averse to doing things carefully and systematically).*
- d. *Often has difficulty resisting immediate temptations or appealing opportunities, while disregarding negative consequences (in childhood, grabs toys off store shelf, or fascinating dangerous objects or plays with dangerous objects; in adulthood, commits to a relationship after brief acquaintance, takes job or enters into business arrangement without doing due diligence).*

PROS

- a. Corrects under-representation of impulsivity.
- b. Criteria drawn from interviews with patients with adult ADHD.

CONS

- a. Increases already large number of criteria to be reviewed/recalled.
- b. Existing datasets will need to be analyzed to reset thresholds.
- c. Criteria are not empirically derived from studies of impulsive ADHD children (as measured with a standard impulsivity criterion), nor are they drawn from existing impulsivity instruments.
- d. Any increase in criteria has the potential for decreasing accuracy, by increasing proportion of false negatives/positives.
- e. Impulsive behaviors are found in many disorders. These have been empirically grouped, with different groups characterizing some disorders and not others. Increased representation of impulsivity without regard to this will increase the likelihood of comorbidity.
- f. No good explanation yet available for previous studies showing lack of independence between impulsivity and hyperactivity in DSM-III-R that led to the inclusions of impulsivity items in the HA list in DSM IV. The new criteria may behave in the same way?

D. Age of Onset of Symptoms/Impairment and change from Impairment to symptoms:

Option 1. No change, i.e., impairment should be present before age 7.

Option 2. Increase age of onset of symptoms to be present on or before age 12.

PROS

- a. Retrospective studies that show age of onset can occur or be first noticed or recalled between ages 7 and 12. Children with later onset have similar natural history and treatment response to those with earlier recalled onset.
- b. Difficult to judge inattention before age 5.
- c. High rates of comorbidity between ADHD and other disorders make it difficult to attribute impairment to ADHD in the many cases with comorbidity.
- d. Use of symptoms rather than impairment is compatible with ICD.

CONS

- a. Will increase prevalence of the disorder; not known if this will increase proportion of false positives.
- b. No guidelines available to define inattention before age 5.

E. Adult ADHD

Option 1. No change, i.e., use existing criteria, with no age-specific criteria.

Option 2. Lower threshold for combined ADHD from 6 to 3 endorsed criteria from each element (HI or I).

PRO

Takes account of research findings that impairment commonly persists after age 18, even though symptoms decline in number.

CON

Reducing threshold will require study to determine whether it disproportionately increases the number and proportion of false positives.

F. Ascertainment of Cross-situationality

Option 1. Existing, i.e., requires cross-situationality, and does not specify ascertainment procedures for un-witnessed behavior.

PRO

Ensures that the diagnosis is not based on situation-specific behavior, which might not differentiate between normality and abnormality.

CON

Parental report of school-based behaviors is not always accurate and can be based on hearsay or supposition.

Option 2. Require that cross-situationality be based on direct report from teacher, employer, or significant other to the current informant or clinician.

PRO

Improves quality of information on which diagnosis is based and against which to measure treatment effect.

CONS

- a. Situations in which non-caretaker third-party information is not available are likely to exist.
- a. Might be very difficult for adult ADHD.

G. Inclusion and Exclusion Criteria

Option 1. No change.

Option 2. Remove autism-spectrum disorder (ASD) and PDD from the excluders.

PROS

- a. No evidence that ADHD is inconsistent with these disorders.
- b. Association between ADHD and these disorders is not universal, and, when it exists, it responds to similar treatment as ADHD without ASD or PDD.

CONS

- a. Unsure whether the neuropathology of inattention and hyperactivity are similar in children with and without ASD and PDD.
- b. Inattention in school settings among children with ASD or PDD is more likely to be attributable to low IQ.

Option 3. Enhance prominence of existing caution that symptoms of inattention should not be due to defiance, hostility, or a failure to understand tasks or instructions.

PRO

Could reduce structural co-morbidity between ODD and ADHD.

CON

Contradicts principle that criteria be “behavioral descriptive” Difficult to ascertain the “mechanisms” or “causes” of specific behaviors.

H. Elaboration of Criteria Descriptions

1. *Inattention*

Criterion (a)

Existing: Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities

Elaboration: *(work has to be checked for accuracy, details are often missed or skipped, materials are not reviewed systematically)*

Criterion (b)

Existing: Often has difficulty sustaining attention in tasks or play activities

Elaboration: *(tunes out easily, has difficulty concentrating for any length of time during lectures, conversations, or on reading)*

Criterion (c)

Existing: Often does not seem to listen when spoken to directly

Elaboration: *(mind often seems to be elsewhere, others often complain that he/she does not listen)*

Criterion (d)

Existing: 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)

Elaboration: *(loses focus quickly, gets sidetracked easily)*

Criterion (e)

Existing: Often has difficulty organizing tasks and activities

Elaboration: *(messy, disorganized work, difficulty managing sequential tasks, keeping accurate records, keeping clothes or belongings in order, organizing time, recurrent latenesses and failure to meet deadlines)*

Criterion (f)

Existing: Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)

Elaboration: *(avoids menial mental tasks such as completing forms, balancing checkbook, preparing reports, reviewing lengthy material)*

Criterion (g)

Existing: Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)

Elaboration: *(e.g., toys, school assignments, pencils, books, tools, wallets, keys, paperwork, eyeglasses)*

Criterion (h)

Existing: Is often easily distracted by extraneous stimuli

Elaboration: *or irrelevant thoughts*

Criterion (i)

Existing: Is often forgetful in daily activities

Elaboration: *(forgets to do errands, return calls, pay bills, keep appointments, mislays objects, forgets where parked car)*

2. **Hyperactivity-Impulsivity**

Hyperactivity

Criterion (a)

Existing: Often fidgets with hands or feet or squirms in seat

Elaboration: *(often moves in chair, taps leg or fingers, is uncomfortable during sedentary activities)*

Criterion (b)

Existing: Often leaves seat in classroom or in other situations in which remaining seated is expected

Elaboration: *(often gets up while engaged in tasks which require remaining seated)*

Criterion (c)

Existing: Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)

Elaboration: *(... or of feeling hemmed in)*

Criterion (d)

Existing: Often has difficulty playing or engaging in leisure activities quietly

Elaboration: *(uncomfortable during quiet activities, is loud or noisy)*

Criterion (e)

Existing: Is often “on the go” or often acts as if “driven by a motor”

Elaboration: *(is averse to being still for extended time, feels has to get going when in restaurants, during lectures; is perceived as being hard to keep up with, as being too restless; has difficulty unwinding or relaxing)*

Criterion (f)

Existing: Often talks excessively

Elaboration: *(for adults, in social situations)*

Impulsivity

Criterion (g)

Existing: Often blurts out answers before questions have been completed

Elaboration: *(completes people’s sentences, “jumps the gun”)*

Criterion (h)

Existing: Often has difficulty awaiting turn

Elaboration: *(waiting to speak in turn, waiting on line, waiting for others)*

Criterion (i)

Existing: Often interrupts or intrudes on others (e.g., butts into conversations or games)

Elaboration: (e.g., *often butts into conversations, games or activities without permission, takes over what others are doing*)

PROS

1. Encourages clinicians to obtain real-life vignettes and examples, rather than to accept broad, poorly defined descriptors.
2. More specific descriptions of behavior could result in greater reliability and consistency.
3. Examples written to cover a broad age range.

CONS

1. Risk that a *single* example will be taken as the sole reference for the broader criterion.
2. Not all examples convey an elaboration (e.g., Inattention *d*, Hyperactivity *b*).
3. Not empirically based or tested.
4. Inattention criterion *d* redundant with general introductory instructions.

IV. CITATIONS

Barkley, R. A., Murphy, K. R., & Fischer, M. (2008). *ADHD in adults: What the science says*. New York: Guilford Press.

Kieling, C., Kieling, R., Rohde, L. A., Frick, P. J., Moffitt, T., Nigg, J., Tannock, R., & Castellanos, F. X. (2010). The age-at-onset of ADHD. *American Journal of Psychiatry*, *167*, 14–16.

Mannuzza, S. (2008, September). *Diagnosing ADHD in adults: DSM-IV controversies and DSM-V recommendations*. Review done for American Psychiatric Association, DSM-V Disruptive Behavior Disorders Workgroup.

Polanczyk, G., Caspi, A., Houts, R., Kollins, S. H., Rohde, L. A., & Moffitt, T. (in press). Implications of extending the ADHD age-of-onset criterion to age 12: Results from a prospectively studied birth cohort. *Journal of the American Academy of Child and Adolescent Psychiatry*.