

# DSM-5 Changes Increase ADHD Symptom Endorsement Among College Students

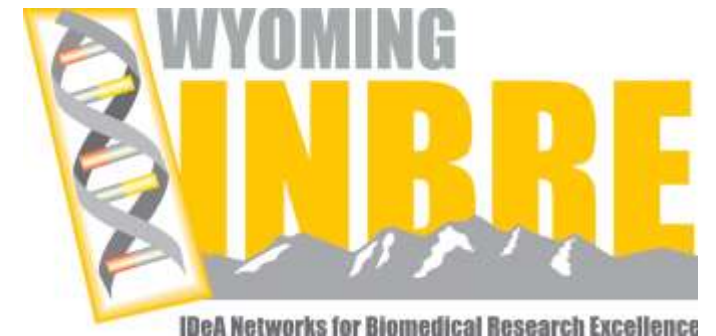
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# From *DSM-IV* to *DSM-5*

- Attention-deficit/hyperactivity disorder (ADHD): a neurodevelopmental disorder distinguished by a persistent pattern of inattention, hyperactivity/impulsivity, or both.
- *DSM-IV* criticisms:
  - Specific behavioral characteristics for adolescents and adults
  - Detailed understanding of symptom clusters
    - (Bell, 2011).

# Changes to Criteria

- Changes made in an attempt to make criteria more developmentally appropriate:
  - Parenthetical behavioral examples
  - Increased age of onset
  - Decreased symptom cutoff for individuals 17 and older
- In spite of these changes, clinical concerns have persisted.
  - Lack of empirical testing
  - Sensitivity: ability to correctly identify true positives.
  - Specificity: ability to correctly identify true negatives.

# Sibley & Kuriyan, 2016

- Clinical sample of adolescents with ADHD
- Parent endorsement of child's symptoms
- Parenthetical examples had a significant effect
  - Higher endorsement using DSM-5 criteria

# ADHD in College Students

- Impairment during college:
  - Academics
  - Relationships
  - Life skills
  - Executive functioning deficits
  - Higher rates of internalizing symptoms
    - (Weyandt & DuPaul, 2006; Harrison, Alexander, & Armstrong, 2013; Vitola et al., 2016; Dan & Raz, 2015)
- Challenging environment

# Collateral Reports

- Necessary for accurate diagnosis
  - (DuPaul, Weyandt, O'Dell, Varejao, 2009).
- Call to use collateral reports in research settings (Sibley et al., 2012).
  - Improves accuracy in study participant recall.

# Participants

- Undergraduates ( $N = 1,978$ ; 63.4% female; 82.0% European American; 58.80% freshman; age  $M = 19.26$ ).
- Collateral parent reports: ( $n=38$ )
- Participants completed an online study for research credit in undergraduate psychology courses.

# Measures

- **Demographics**
- ***DSM-IV***: (APA, 1994).
  - 4-point scale from *Never/Rarely* to *Very Often*.
- ***DSM-5***: (APA, 2013).
  - 4-point scale from *Never/Rarely* to *Very Often*.

# Group Differences

- Repeated measures ANOVA:
  - *ADHD Group* - Inattention:  $F(1, 489) = 13.67, p = .000, \eta_p^2 = .03$
  - *Non-ADHD Group* - Inattention:  $F(1, 1488) = 4.24, p = .040, \eta_p^2 = .00$

Table 1: Mean Symptoms Endorsed by Group

	ADHD		Non-ADHD	
	DSM-IV	DSM-5	DSM-IV	DSM-5
Inattention	$M=4.53^*$	$M=4.97^*$	$M=0.59^*$	$M=0.64^*$
Hyperactivity/Impulsivity	$M=3.18$	$M=3.27$	$M=0.67$	$M=0.65$
Total	$M=7.72^*$	$M=8.24^*$	$M=1.26$	$M=1.29$

# Individual Item Analyses

- *Inattention*: ADHD group participants had higher endorsement rates on 8 out of 9 symptoms
  - College women (ADHD group) endorsed 9 out of 9 IA items at higher rates than college men.
- *Hyperactivity/impulsivity*: ADHD group participants had higher endorsement rates on 6 out of 9 symptoms.
  - College men endorsed 3 out of 9 HI items at higher rates than college women
  - College women endorsed 4 out 9 HI items at higher rates.

# Inattention Items

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Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities **(e.g., overlooks or misses details, work is inaccurate)**. **(Endorsed more by college women)**

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Often has difficulty sustaining attention in tasks or play activities **(e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading)**. **(Endorsed more by college women)**

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Often does not seem to listen when spoken to directly **(e.g., mind seems elsewhere, even in the absence of any obvious distraction)**. **(Endorsed more by college women)**

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Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace **(e.g., starts tasks but quickly loses focus and is easily sidetracked)**. **(Endorsed more by college women)**

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Often has difficulty organizing tasks and activities **(e.g., difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines)**. **(Endorsed more by college women)**

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Often avoids, seems to dislike, or is reluctant to engage in tasks that require sustained mental effort **(e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers)**. **(Endorsed more by college women)**

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Often loses things necessary for tasks or activities **(e.g., school assignments, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones)**. **(Endorsed more by college women)**

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Is often easily distracted by extraneous stimuli **(for older adolescents and adults, may include unrelated thoughts)**. **(Endorsed more by college women)**

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Is often forgetful in daily activities **(e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments)**. **(Endorsed more by college women)**

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# Hyperactivity/Impulsivity Items

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Often fidgets with **or taps** hands or feet or squirms in seat.

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Often leaves seat in situations when remaining seating is expected (**e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place**). (Endorsed more by college men)

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Often runs about or climbs in situations where it is inappropriate. (Note: In adolescents or adults, may be limited to feeling restless). (Endorsed more by college men)

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Often **unable** to play or engage in leisure activities quietly. (Endorsed more by college women)

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Is often “on the go,” acting as if “driven by a motor.” (**e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with**). (Endorsed more by college men)

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Often talks excessively. (Endorsed more by college women)

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Often blurts out an answer before a question has been completed (**e.g., completes people's sentences; cannot wait for turn in conversation**). (Endorsed more by college women)

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Often has difficulty waiting his or her turn (**e.g., while waiting in line**). (Endorsed more by college women)

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Often interrupts or intrudes on others (**e.g., butts into conversations, games, or activities; may start using other people's things without asking or receiving permission; for adolescents or adults may intrude into or take over what others are doing**).

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# Discussion and Implications

- Potentially improved awareness of disorder in adults
- Overcorrection of the diagnostic system
  - (Sibley, Waxomsky, Robb, & Pelham, 2013)
- Separate criteria for children and adults
  - Developmentally appropriate for different age groups
- Discrepancy between student and parent symptom endorsement
- Empirical testing

Questions?



# Additional Factors

- Additional repeated measures ANOVAs were conducted to determine if there were significant effects by age, race/ethnicity, and sex.
- There were no significant group differences by demographic factors.