DOCUMENT SUMMARY

This annual research review by Hinshaw et al. provides a comprehensive overview of how Attention-Deficit/Hyperactivity Disorder (ADHD) manifests in girls and women, arguing that they have been historically underrepresented and misdiagnosed. The paper is centrally important to Enlitens as it serves as a powerful case study for how standardized, male-prototype-based assessment models fail entire populations. It provides extensive evidence that diagnostic criteria and observer ratings are biased, leading clinicians to overlook the predominantly inattentive and internalizing presentations common in females, who often use compensatory strategies to mask their impairments. This failure of standard assessment leads to severe, life-threatening outcomes, including a high risk for self-harm, underscoring the urgent need for a more nuanced, developmentally-informed, and gender-aware clinical assessment model like the one Enlitens proposes.

FILENAME

HINSHAW_ET_AL_2021_ADHD_in_Girls_and_Women_critique_of_gender-biased_assessment_and_diagnostic_practices.md

METADATA

- **Primary Category**: ASSESSMENT
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CRITICAL QUOTES FOR ENLITENS

- "Until recently, however, almost all research in this area has focused on boys and men. Female presentations have been largely overlooked in both clinical and research settings."
- "Clinicians may overlook symptoms and impairments in females because of less overt (but still impairing) symptom manifestations in girls and women and their frequent adoption of compensatory strategies."
- "Symptom lists for ADHD are biased toward male behaviors (e.g., physical overactivity or extreme risk-taking) as opposed to female-related manifestations (e.g., excessive verbalizations or more subtle indicators of impulsivity...)."

- "Teachers rate boys as higher on both [inattention and hyperactivity], with the clear implication that adult ratings may lead to underreporting and underdiagnosis of ADHD in girls."
- "A 15-minute office visit without normed informant rating scales, developmental histories, medical examinations, or testing to consider comorbid psychiatric and learning conditions may lead to both overdiagnosis and underdiagnosis, with the former more likely for boys but the latter for girls."
- "The assumption that girls and women simply do not exhibit ADHD or do so only rarely is no longer tenable."

CRITIQUE OF CURRENT ASSESSMENT & DIAGNOSTIC PRACTICES

Reasons for the Underrepresentation and Misdiagnosis of Females

The authors provide a detailed list of factors contributing to the failure to identify ADHD in girls and women, highlighting systemic biases in research, clinical practice, and assessment tools.

- **Historical Neglect:** "long-term scientific/professional insistence that the condition was vanishingly rare in girls (and even more so in women, as ADHD was assumed to be childhood-limited)"
- **Symptom Presentation Mismatch:** "predominance of the inattentive (and less visibly impairing) presentation in females"
- **Lower Comorbid Externalizing Behaviors:** "lower rates of co-occurring disruptive behavior disorders in girls or later onset of such... suppressing the visibility and salience of female symptoms"
- **Clinician Bias:** "clinician bias that ADHD symptoms are indicative of the diagnosis in boys but not girls"
- **Biased Informant Ratings:** "the finding that parent and teacher ratings systematically underreport female, as opposed to male, ADHD behavior patterns, even when objectively observed behaviors are matched between the sexes"
- **Compensatory Strategies / Masking:** "higher rates of compensatory behaviors in females" and "many girls with actual ADHD may be hard to identify given their tendency to present with exclusive inattention, relative lack of externalizing behaviors, comorbid presence of anxiety and/or depression, and use of compensatory strategies and family supports that may mask core symptoms"

Failure of Typical Diagnostic Practices

The paper critiques the gap between evidence-based assessment guidelines and real-world clinical practice, which particularly disadvantages females.

- "Despite evidence-based guidelines... general pediatricians and adult practitioners are often not sufficiently trained in (or reimbursed for, in the United States) such evidence-based assessments."
- "A 15-minute office visit without normed informant rating scales, developmental histories, medical examinations, or testing to consider comorbid psychiatric and learning

conditions may lead to both overdiagnosis and underdiagnosis, with the former more likely for boys but the latter for girls..."

The Problem with Sex-Specific Norms

The authors caution against simply creating separate, lower diagnostic bars for females, arguing instead for fundamentally better, more inclusive assessment methods.

- "...a core issue is whether girls and women should be diagnosed in relation to overall norms (emanating from both males and females) versus female-specific norms."
- "With the latter, girls would more easily meet symptom thresholds, as they would be compared with the ‘lower bar’ of average female levels of ADHD symptoms..."
- "Yet we urge caution. It would need to be definitively established that girls qualifying for an ADHD diagnosis... on the basis of sex-specific norms reveal clear impairments. Otherwise, rates of diagnosis in females with ADHD could become overinflated."
- "In the absence of such evidence, it may be preferable to ensure that (a) diagnostic items reflect both male and female-specific manifestations, (b) subtle indicators of inattention/disorganization are probed, and (c) clinicians inquire about such factors as compensatory behaviors and life transitions in girls and women..."

THEORETICAL FRAMEWORKS

The 'Gender Paradox'

This theory attempts to explain why a condition with lower prevalence in one sex may present more severely in that sex.

- "According to the 'gender paradox'... the sex with lower prevalence is expected to display more severe features as well as higher rates of comorbid disorders."
- **Polygenetic multiple threshold model:** "...the lower-prevalence sex (e.g., females with ADHD) would need to have greater levels of family history and a higher genetic 'load' and/or environmental disadvantage to meet diagnostic criteria."
- **Constitutional variability model:** "...boys are slower to mature than girls, leading to a greater propensity for exhibiting a wide spectrum of neurodevelopmental symptoms. Given the extreme gender atypicality of her symptoms in relation to other females, a girl with significant ADHD would thus be likely to have demonstrable neural dysfunction."

Heterotypic Continuity

This concept explains how an underlying vulnerability can manifest as different symptoms or disorders over time, arguing against static, cross-sectional assessment.

- "Finally, what appears to be the sequential presence of different categorical diagnoses for example, from early ADHD to later conduct disorder, followed by substance use disorders and adult antisocial personality disorder for males and self-harmful behaviors and adult borderline personality disorder for females... may actually reflect heterotypic continuity."

- "This concept denotes the stability of an underlying predisposition that yields changing symptoms across development as the result of a range of biological and contextual forces."
- "In short, for substantial numbers of girls with ADHD, a heterotypically continuous trajectory from early impulsivity (and in some cases, high levels of concurrent early inattention) is salient."

POPULATION-SPECIFIC FINDINGS (FEMALES WITH ADHD)

Symptom Presentation

- "Girls and women with ADHD show a predominance of inattention and associated internalizing problems; boys and men display greater levels of hyperactive-impulsive symptoms and associated externalizing problems."
- "Females are more likely to present inattention symptoms and associated internalizing problems, whereas males are more likely to display hyperactive-impulsive symptoms and associated externalizing problems."

Key Impairments and Long-Term Risks

- **General:** "Females with ADHD experience, on average, serious impairments, with a particularly heightened risk for problems in close relationships and engagement in self-harm."
- **Self-Harm & Suicidality:**
    - In one longitudinal study (BGALS), girls with childhood ADHD-Combined presentation had markedly higher rates of attempted suicide (22% vs. 6% of comparisons) and moderate-to-severe NSSI (51% vs. 19% of comparisons) by early adulthood.
    - The combination of childhood ADHD and one or more forms of maltreatment was linked to a suicide attempt rate of over 33%.
- **Unplanned Pregnancy:** The BGALS study found unplanned pregnancy rates of 43% in the ADHD sample versus 11% of comparisons.
- **Intimate Partner Violence (IPV):** The BGALS study found a high risk for intimate partner violence among women with childhood ADHD.
- **Academic & Employment:**
    - The BGALS sample showed academic underperformance, especially in mathematics.
    - A Norwegian study found a larger incidence of lifetime work-related disability in females with ADHD, with inattentive symptoms being especially predictive.

PRACTICAL APPLICATIONS (RECOMMENDATIONS FOR ASSESSMENT)

The authors provide a detailed list of recommended practices for the evaluation of ADHD in females, which strongly aligns with the principles of a clinical interview model.

Regarding evaluation and assessment:

- "The assumption that girls and women simply do not exhibit ADHD or do so only rarely is no longer tenable."
- "A thorough, evidence-based evaluation is essential, including assessment of comorbid behavioral, emotional, and learning issues."
- "Many assessment scales laden are with items emphasizing male forms of ADHD but do not focus sufficiently on potential female-relevant behaviors (e.g., hyper-verbal behavior versus overly active physical behavior)."
- "Many girls with actual ADHD may be hard to identify given their tendency to present with exclusive inattention, relative lack of externalizing behaviors, comorbid presence of anxiety and/or depression, and use of compensatory strategies and family supports that may mask core symptoms..."
- "Times of life transition... may well be triggering of symptom exacerbation. Thus, developmental histories are essential."
- "Evaluation of strengths in the assessment process is crucial, as their elucidation may be important targets for treatment planning."