AuDHD - Co-Occurring Autism and ADHD as a Field of Education Research
2e Educational Leaders Summit
@Cleveland State University, Oct. 8th - 10th, 2025

- Why do I care?
    - Incredible educator, exceptional human, and brilliant.
        - Struggles with overload, overwhelm, freez,e and fawn.
        - Incredibly insightful on her own AuDHD.
            - Struggles as an adult with staying in any one place too long, as her hyperfocus and interest in a new place and new role seem to help her in the first several years, but as the novelty wears off, it becomes harder to manage her intensities, sensory overwhel,m and demand avoidance, most likely associated with her autism (PDA traits)
        - Incredible neurodivergent students who are now coming into our schools with an appropriate diagnosis of co-occurring Autism & ADHD but systems are repeatedly failing them.
        - If our PBA Schools are failing them, basically a school with impassioned, neurodiversity-trained, educated, and caring staff, flexible scheduling, 7-to-1 student-to-teacher ratio, and administration that sinks every penny back into the school, how are other systems helping them?

Basis of initial research

Article 1

- Liu, A., Lu, Y., Gong, C., Sun, J., Wang, B., & Jiang, Z. (2023). Bibliometric analysis of research themes and trends of the co-occurrence of autism and ADHD. *Neuropsychiatric Disease and Treatment, 19*, 985–1002. https://doi.org/10.2147/NDT.S404801
- Research Threads from Liu et al Bibliometric Analysis
    - **Etiology and Genetics:** The overlapping genetic architecture of ASD and ADHD is a central research theme. Studies have identified shared risk loci and candidate genes (e.g., DRD3, MAOA, serotonin-related genes), although further large-scale biological samples are needed to deepen the understanding.
    - **Neuroimaging:** Both disorders show similarities and differences in brain structure and function. Reduced corpus callosum white matter and altered grey

Notes

matter volumes in regions such as the left inferior frontal gyrus have been associated with symptom severity. Functional MRI studies show decreased activity in frontal and parietal lobes for both conditions

- **Clinical Diagnosis:** Accurate early diagnosis is critical for effective intervention. Current practices rely on behavioral assessments, but there is growing interest in identifying reliable biomarkers through neuroimaging and cognitive testing to improve diagnostic precision
    - Questions I had centered in this area. If identification is happening typically through behavioral assessments, which are a) subjective and b) likely to be highly inaccurate in an individual with co-occurring neurodiversities that can often mask each other, how well are we able to match EBPs (Evidence-Based Practices) to the work we are doing with these students? (More and more 2e-ers that I am seeing are coming in now with this co-occurring diagnosis.)
    - For 2e-ers, there is an additional overlay of potential symptomology when we incorporate giftedness, itself a neurodiversity.
- **Interventions:** Traditional approaches like psychotherapy and special education remain foundational. Emerging interests include dietary supplements, notably omega-3 fatty acids, which support central nervous system development and show promise in symptom improvement. Gut microbiota modulation via probiotics is an innovative avenue, with studies indicating positive effects on gastrointestinal and behavioral symptoms

Article 2 - Follow-Up Study of Reference

- Hatch, B., Kadlaskar, G., & Miller, M. (2023). Diagnosis and treatment of children and adolescents with autism and ADHD. *Psychology in the Schools, 60*(2), 295–311. https://doi.org/10.1002/pits.22808
- Recent changes in DSM-5 acknowledge the frequent co-occurrence of autism and ADHD, which demands updated approaches in assessment and treatment that recognize their overlap rather than treating them as independent conditions. Children with both diagnoses often experience greater impairment than those with either disorder alone
- **Co-Occurrence of Autism and ADHD**
    - Children with ADHD show elevated autism symptoms compared to typically developing peers, including social communication difficulties and restricted behaviors.
    - Conversely, many autistic children exhibit attention and activity level differences typical of ADHD.

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        - The co-occurrence varies across development, with correlations strongest during adolescence.
        - Co-occurring autism and ADHD are linked to greater cognitive delays, impaired executive functioning, emotional and conduct problems, and reduced quality of life compared to either diagnosis alone
- **Research TakeAways**
    - **Collaborative Partnerships -** Successful assessment and treatment rely on collaborative family-professional partnerships, involving shared decision-making sensitive to individual strengths, challenges, and preferences. Engagement of older children and adolescents is particularly important
    - **Neurodiversity Perspective -** The neurodiversity movement highlights the importance of including autistic and ADHD communities in research prioritization and intervention design. It also emphasizes environmental adjustments that promote acceptance and inclusion, which can guide future school-based supports
    - **Assessment and Differential Diagnosis**
        - Symptoms overlap and complicate diagnoses; for instance, hyperactivity in autism may stem from social communication difficulties rather than classic ADHD.
        - Avoid diagnostic overshadowing by not attributing all symptoms to one disorder or using the same behaviors to diagnose both.
        - Developmental history, symptom interviews (e.g., K-SADS), and multi-informant rating scales (parents, teachers, self-reports) are essential.
        - Cognitive assessments inform about intellectual functioning and additional diagnostic considerations.
        - Behavioral observations, especially in school settings, provide valuable insight.
        - Other assessments may include academic achievement, speech/language, motor skills, and learning disabilities.
        - Integration of information must be carefully done, considering the developmental context and avoiding the “double counting” symptom
- **Treatment and Intervention for Co-Occurring Autism and ADHD**
    - Home-Based Behavioral Management
        - Behavioral strategies are first-line treatments for both autism and ADHD.
        - For Autism, naturalistic developmental behavioral interventions improve social communication and play skills.

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    - For ADHD: parent training focusing on reinforcement of appropriate behaviors and ignoring disruptive behaviors shows positive outcomes.
    - Adaptations of ADHD-focused parent training have shown promise for children with co-occurring autism and ADHD, but more research is needed on effective components and generalization of effects
- School-Based Behavioral Interventions
    - ADHD interventions include classroom contingency management such as daily report cards, token economies, and time-out.
    - Autism interventions focus on improving social behaviors; however, evidence is limited, and further RCTs are needed.
    - No studies have specifically evaluated behavioral interventions in schools for children with both autism and ADHD, so current approaches extrapolate from separate disorders
- **Academic Interventions**
    - Academic difficulties are common; accommodations and modifications (e.g., extra time, notes, reduced assignments) are typically delivered through IEPs or 504 plans.
    - Organizational skills training (time management, planning) has strong evidence for ADHD and shows promise for autistic adolescents when customized.
    - Response to Intervention (RTI) frameworks may be useful for schools to address academic and behavioral needs, but require adaptation for co-occurring conditions
- **Social Skills Training**
    - ADHD-related social difficulties often reflect performance deficits, whereas autism-related difficulties involve knowledge gaps.
    - Interventions like the PEERS program address both social knowledge and performance and have demonstrated effectiveness for autism but limited evidence for ADHD.
    - Social skills training has potential benefit for co-occurring autism and ADH,D but requires further empirical research
- **Medication Management**
    - Stimulant and non-stimulant medications effectively reduce ADHD symptoms in children with ADHD alone and those with co-occurring autism, though response rates and tolerability are lower in the latter group.
    - Side effects may be more common in children with autism.

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        - Medication is generally considered after behavioral interventions, especially in children over 6 years.
        - No evidence supports medication for core autism symptoms.
        - Combining medication with behavioral interventions can optimize outcomes
- **Implications for Clinical and Educational Practice**
    - Assessments should be comprehensive, multi-informant, and consider cross-setting functioning.
    - Clinicians and educators should collaborate closely, including parents and youth, to develop individualized profiles and intervention plans.
    - Specialized training is necessary for accurate diagnosis and treatment planning.
    - Interventions should be evidence-based, goal-oriented, and coordinated across home and school settings.
    - Behavioral parent training, school contingency management, medication, academic skills training, and social skills interventions all form components of a comprehensive treatment plan
- **Conclusions and Future Directions**
    - Autism and ADHD frequently co-occur, with emerging evidence supporting the assessment and treatment of their overlap.
    - More research is needed to refine assessment tools suitable for co-occurrence, empirically test integrative interventions, and increase cultural sensitivity.
    - Inclusion of neurodiverse community perspectives is critical to advancing research and clinical practice.
    - Schools play a pivotal role in creating inclusive environments that support neurodiverse learners.
- **Questions**
    - How can we engage researchers in partnership with schools to generate legitimate studies focused on co-occurring autism/adhd because nearly all research is currently attempting to distill from studies done to generate EBPs in one group or another.
    - Where do we start?
    - Is it necessary to, as the Hatch article stated, not “double-count” traits or expressed behaviors? Is it better to consider the co-occurrence as a third variation and consider studies looking at the totality? Is the whole (of the impact) greater than the sum of its parts?

Notes

- Bonus - Sharing an exploration activity I've written to do with groups of adults (this one was designed for psychologists/psychiatrists, but I am also reforming specifically for my teachers later in the year, to help them visualize the implications of AuDHD for learners (and for staff!!)

Notes