A Review and a Proposal for Reducing the Symptoms of Attention-Deficit/Hyperactivity Disorder in Adolescents by Combining Mindfulness-Based Stress Reduction Training and Methylphenidate Medication as a Treatment

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A Proposal for Combining Mindfulness Intervention with Medication for Treating ADHD in Adolescents

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Background
- National Health Interview Survey reports increase in ADHD prevalence:
  - 1997 (6.1%) vs 2016 (10.2%)
- First-line therapy → medication (Methylphenidate)
- Challenges of medication → side-effects, short-term effect, and financial burden
- Alternative treatment to manage ADHD symptoms in adolescents → mindfulness-based practices

Methodology
Advantages and disadvantages of Methylphenidate
Mindfulness-based research on children and adolescents with ADHD

Literature Review
Medication
- Improved attention
- Reduced hyperactivity/impulsivity
- Side Effects: insomnia, body pain, stress, headache, dizziness, mood changes, depression risk, and more
- Short-Term Effect: discontinued medication → symptoms triggered
- Financial Burden: higher dose leads to more spending. ~ $2,200 annual spending for treatment. In addition to medication costs are hospital/doctor visits, educational spending, and treatment for comorbid disorders (ex. bipolar, anxiety, depression)

Mindfulness
- Increased attention, self-awareness, and self-control
- Strengthened peer relationships
- Improved sleep quality and neurocognitive tasks
- Reduction in disruptive and aggressive behavior
- Reduction in stress and somatic symptoms

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Balancing with Medication: No reported side effects. Long lasting (6-8 week follow up studies) and cost-effective (at-home practice)

Discussion
- Problem → Limitations in medication
- Possible Solution → Mindfulness-based practices
- Gap in literature → No exploration of a combination therapy
- Proposal → Methylphenidate Medication + Mindfulness-based intervention for adolescents with ADHD

Future Directions
(1) Execute the proposal: explore the efficacy of the combination treatment for adolescents with ADHD.
(2) Evaluate the long-term effectiveness and possible side effects undiscovered in mindfulness-based practice.

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References