

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

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# Background

- > National Health Interview Survey reports increase in ADHD prevalence:
- **1997** (6.1%) **2016** (10.2%)
- > First-line therapy > medication (Methylphenidate)
- > Challenges > side-effects, short-term effect, and financial burden
- ➤ Alternative treatment to manage ADHD symptoms in adolescents  $\rightarrow$  mindfulnessbased practices

# Methodology

Medication

Advantages and disadvantages of Methylphenidate

Mindfulness

Mindfulness-based research on children and adolescents with ADHD

### References

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- Swensen, A., Birnbaum, H. G., Ben Hamadi, R., Greenberg, P., Cremieux, P. Y., & Secnik, K. (2004). Incidence and costs of accidents among attention-deficit/hyperactivity disorder patients. Journal of Adolescent Health, 35(4), 346.e1-346.e9. https://doi.org/10.1016/j.jadohealth.2003.12.003

Matza, L. S., Paramore, C., & Prasad, M. (2005). A review of the economic burden of ADHD. Cost Effectiveness and Resource Allocation, 3(5), 1–9. https://doi.org/10.1186/1478-7547-3-5

#### Literature Review

#### Medication

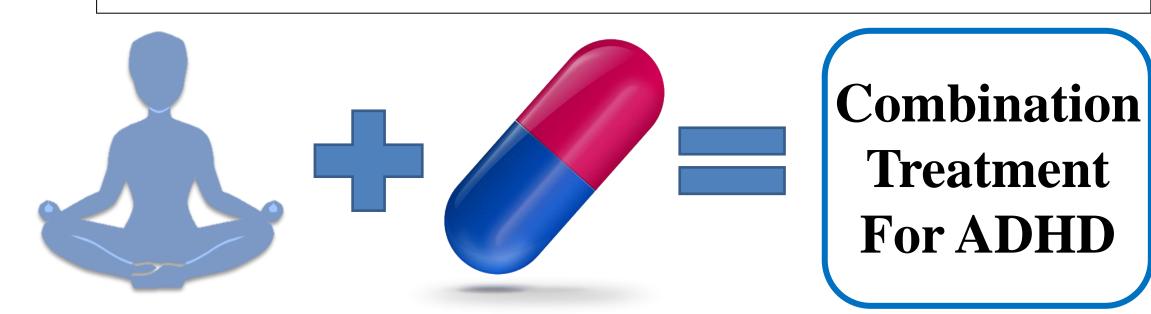
- Improved attention
- Reduced hyperactivity/impulsivity
- Side Effects: insomnia, body pain, stress, headache, dizziness, mood changes, depression risk, and more
- Short-Term Effect: discontinued medication → symptoms triggered
- Financial Burden: higher dose for significant results. ~ \$2,200 annual spending for treatment. Hospital/doctor visits. Educational spending. Comorbid disorders (ex. bipolar, anxiety, depression)

#### Mindfulness

- Increased attention, self-awareness, and selfcontrol
- Strengthened peer relationships
- Improved sleep quality and neurocognitive tasks
- Reduction in disruptive and aggressive behavior
- Reduction in stress and somatic symptoms
- 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  $\rightarrow$  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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