

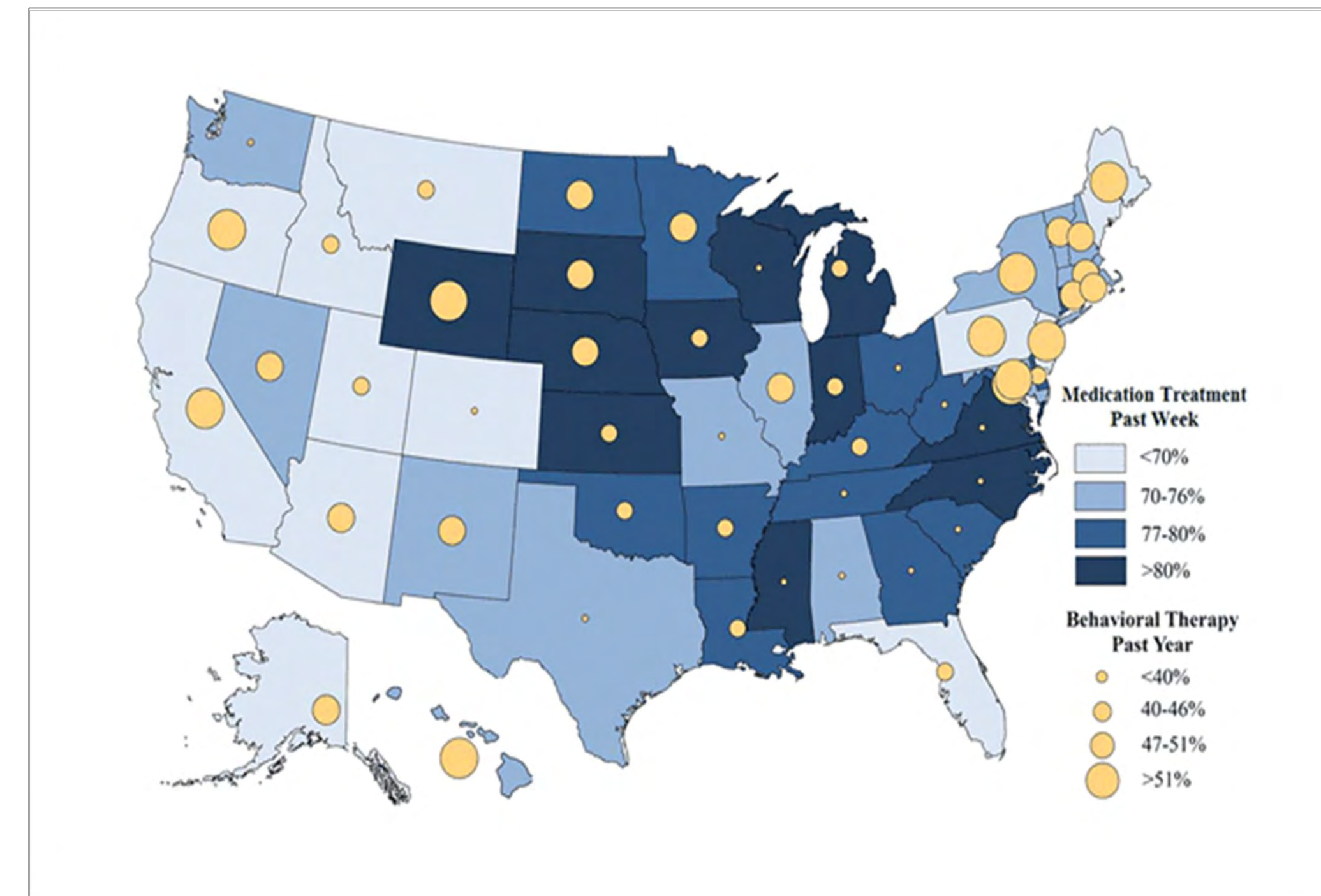
Faculty Advisor: Larry Pilgrim

Alyssa Henderson

Capstone Director: Dr. Ryan Button

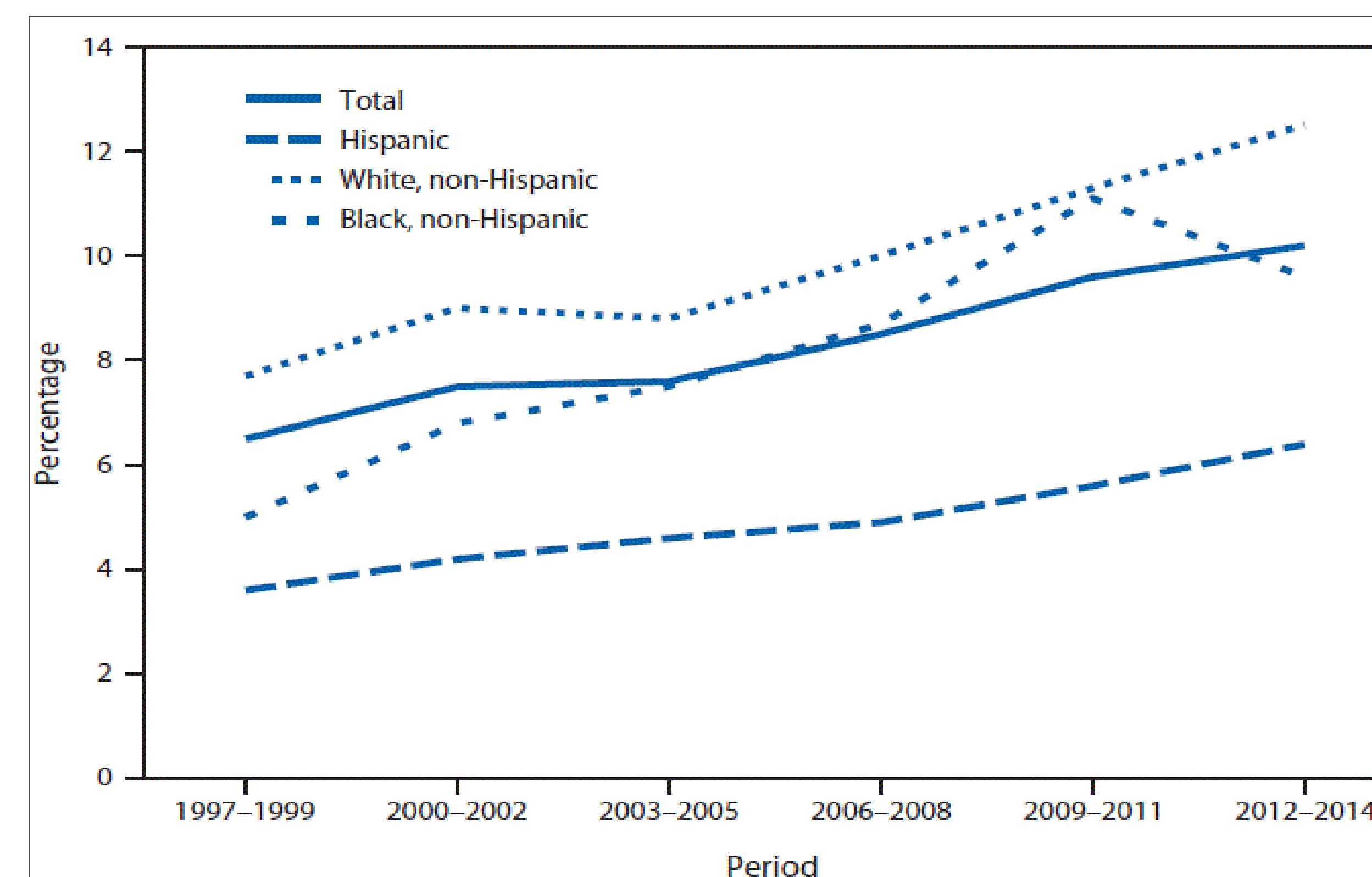
Introduction

Eleven percent of American children are diagnosed with at least one type of ADHD. That is 6.4 million children that are clinically diagnosed with the inability to focus attentively, restlessness, imbalanced mood swings and under-developed social skills. All of these lead to any learning environment being a daily battleground in the children both internally as well as externally. This is caused due to an under-activity in the frontal lobe of the child's brain, which is responsible for their planning, motivation, social behavior and speech production. The symptoms associated with ADHD are currently being combated with the utilization of stimulants known as methylphenidates and amphetamines. This sector of the pharmaceutical industry costs a family seeking treatment around \$2,000 annually, while society at large spends approximately 42.5 billion for the various treatment options available to the public coupled with those currently being researched. But an even larger concern remains, what are these stimulants truly doing to these children both short and long term?



<https://www.cdc.gov/ncbddd/adhd/data.html>

The graphic displayed on the right depicts the increase in ADHD diagnoses in children of different ethnicities between the years of 1997-2014. This trend is a product of lowering the age a child can be diagnosed coupled with decreasing the severity of the behavioral tendencies a child must exhibit to be classified with Attention-Deficit / Hyperactivity Disorder. This also constitutes for today's statistic that one to three children in every classroom are diagnosed with ADHD.



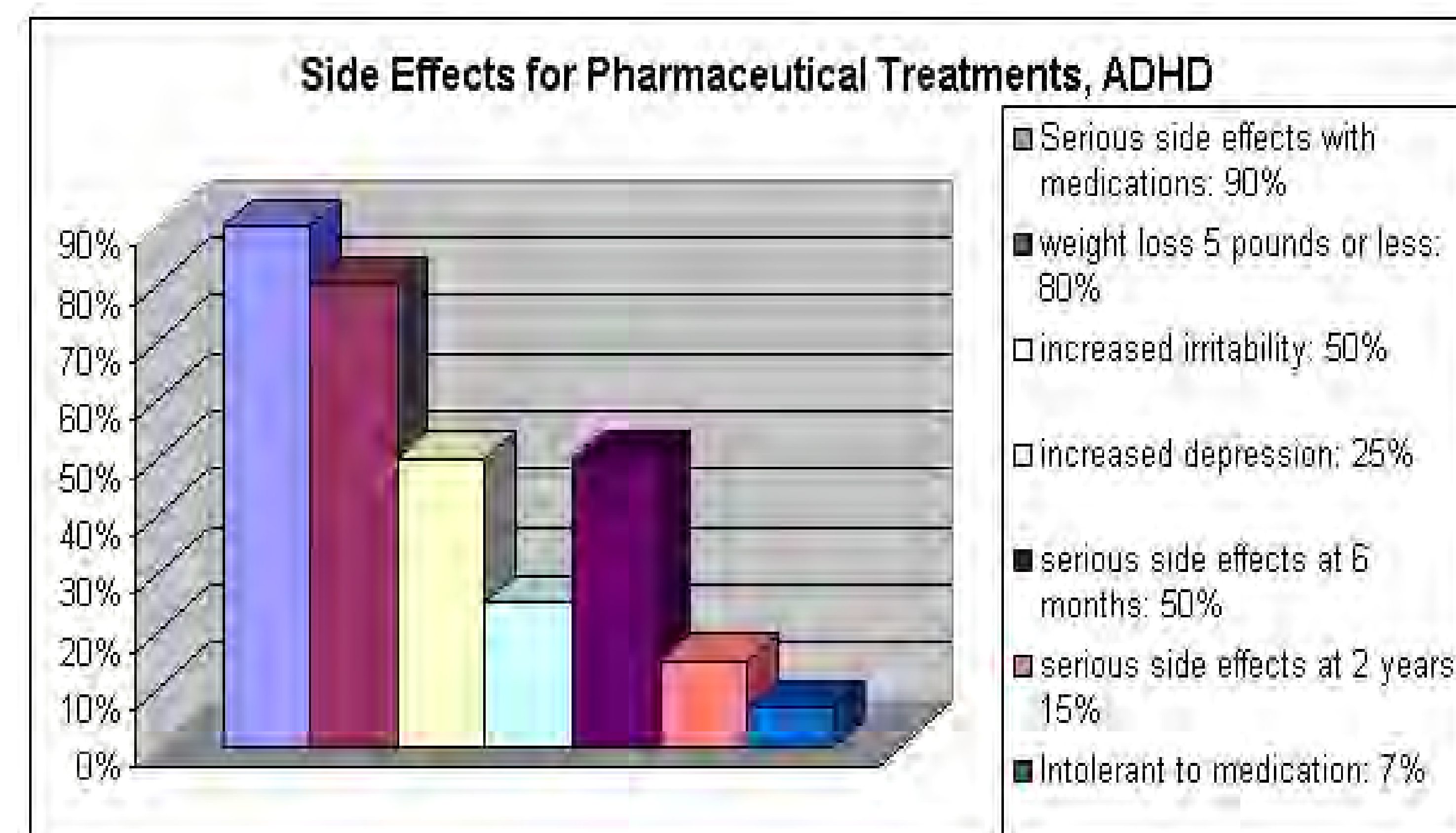
<https://chadd.org/about-adhd/general-prevalence/>

Research Hypothesis

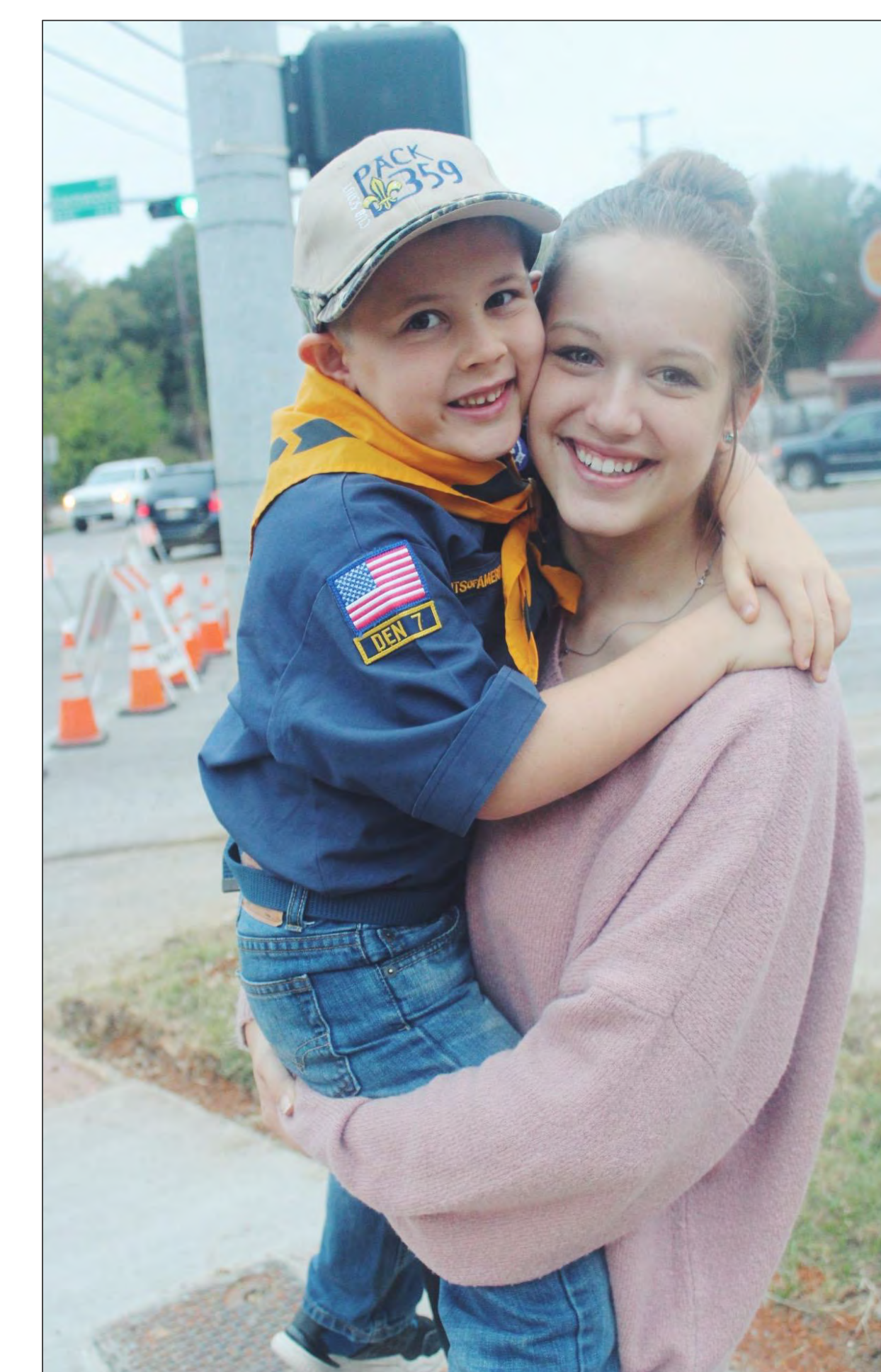
Exploration into Associations of ADHD Medications to Academic and Behavioral Performance in Comparison to the Adverse Side Effects.

Purpose and Significance

Whether the benefits outweigh the adverse side effects associated with ADHD medications is a controversial topic prevalent within the ADHD treatment community. Children that are receiving clinically prescribed stimulants are often prone to experience a loss of appetite, inconsistent sleeping habits, and lower energy levels in order to balance overall mood. The right course of action for parents can be a difficult line to discern, especially with the unknown adverse effects that could potentially influence their child's psyche, mental and physical development, as well as hormonal production as a result of dependence on their treatment. This study is an attempt towards providing experimental validation as to how effective the stimulants are truly improving academic performance as well as lowering children's tendencies to disrupt classroom operations. The significance of these findings would constitute for a deeper understanding for parent's acceptance or denial of these medications as well as to determine whether this costly pharmaceutical industry is genuinely producing useful, beneficial, yet safe products for school children.



http://aycnp.org/adhd_drugs.php



Methodology

This research consists of a mixed method approach where both qualitative and quantitative analysis' were used. Quantitatively, I examined multiple accounts of studies involving children, that both have and have not been diagnosed with ADHD, measuring their academic performance as well as overall body mass index over several years with and without the use of stimulants. Qualitatively, I will utilize previously conducted interviews with teachers and/or parents evaluating student's overall behavior, personality, mental stability, as well as any physical changes (i.e. changes in eating and sleeping habits) based on their professional and personal experience.

Implications for Further Research

One prevalent trend that I continuously encountered within my research was observing that the desired results while the child is on medication (i.e. improved behavior in the classroom, better grades), often jaded the parents and teachers to where they overlooked underlying adverse symptoms, realizing that the child could be affected much more heavily than recognizable at first glance. Effectively evaluating the positive effects of the medication with equal consideration upheld for the negative symptoms that surface would be ideal for weighing the benefits versus the potential harms associated with ADHD treatments; however this was almost always not the case. When a child's behavioral and academic patterns yield overall improvement following treatment, most parents will still choose to continue treatment, despite the adverse side effects that may arise.

Essential Citations

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