

An Alternative Solution?

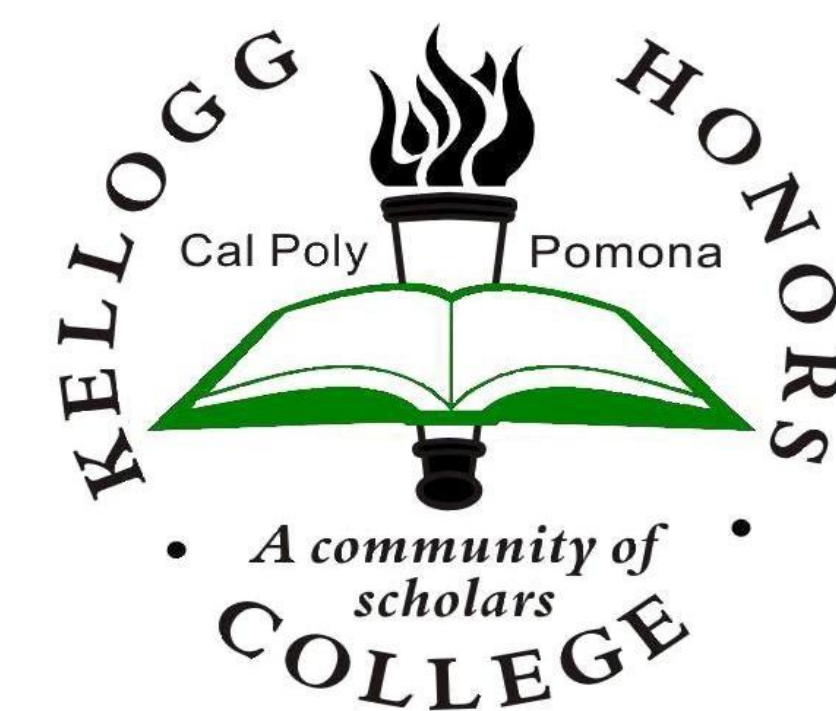
The Effects of Mindfulness on ADHD Symptoms



Alicia Balderrama, Communication

Mentor: Dr. Alane Daugherty

Kellogg Honors College Capstone Project



Introduction:

Because my research sample for this project was so small, I would classify it as a pilot study or a case study. Other larger pilot studies on this topic have been performed, and this project only contributes to that body of work in demonstrating a need for more extensive research and practice of this type of therapy. My sample consisted of three college-aged students who had been professionally diagnosed with ADD/ADHD, and while each received the same instructions and testing measures, they each had very different results, which I will examine in greater detail later in this report. If anything, this study brought to light some potential difficulties and limitations that should be avoided or addressed in a larger study, as well as some suggested alterations to the parameters of the experiment.

Purpose:

- Rates of ADHD diagnosis are on the rise
- There are only two treatment options available: medication and behavioral therapy
- Neither option is 100% effective, and they each come with a high price, be it unbearable side effects or a hefty price tag
- Mindfulness meditation has been widely researched and is believed to enhance focus, attention, relaxation and cognitive function when performed regularly
- Inability to focus, difficulty maintaining attention, and hyperactivity are the hallmark symptoms of ADHD
- **Based on this information, I hypothesized that mindfulness meditation may be able to alleviate these symptoms in persons with ADHD**

Method:

The research sample consisted of three college-aged individuals (defined as persons between the ages of 18 and 35) who had been diagnosed with either ADD or ADHD by a medical professional. Before testing began, each participant filled out some demographic information, including whether they actively take medication to treat their symptoms, when they were diagnosed, and about what types of treatments they had received, if any. Participants then filled out a self-report symptom checklist used by medical professionals to diagnose ADHD in their patients. The self-report scale measured the degree to which each participant felt that certain symptoms typically affected them in their daily life. The participants were then provided a link to a YouTube video of a 20-minute guided mindfulness meditation and were asked to listen to the audio once a day for one week. A second 20-minute video link was provided for the second week of practice with the same instructions. The videos were carefully selected for being at an introductory level and for focusing specifically on maintaining and directing focus and attention, while at the same time promoting physical and mental relaxation. After the second week of practice, participants were asked to fill out the same self-report checklist, reporting the degree to which they felt they were affected by their symptoms over the previous two weeks. By analyzing the pre-test and post-test, as well as taking into account the presence of medication and frequency and timing of each participant's practices, I was able to formulate several conclusions.

	Participant 1	Participant 2	Participant 3
Age	29	22	20
Medication	yes	yes	no
# of practices (out of 14)	14+	10	5
Results	significant improvement	little to no change	little to no change
Additional notes	Participant noted that she often practiced twice a day and experienced significant relief from hyperactivity	Participant noted that he found it difficult to engage with audio content and usually practiced in the evening when medication had mostly worn off	Participant noted that he consistently found it difficult to remember to do the practice

Results:

Each participant's experience during the experiment was different, so they each ended up with quite different results. Part of the reason for this variability is in the sample size. With only three participants, the margin of error is quite high. If more participants were available, the results would probably be more uniform and would be better able to showcase trends. Another factor is that two participants were full-time college students, at least one had a part-time job, and one was a caregiver to a young child. While all these external factors most likely made it difficult for the participants to follow the instructions of the experiment perfectly, one positive outcome is that these kinds of challenges and obstacles are part of everyday life, and so the results, for that reason, may reflect more accurately how mindfulness may influence a regular practitioner with ADHD.

Conclusion:

While two of the three participants did not experience significant change in their symptoms, it is important to note that neither of those two participants fully followed the instructions to practice mindfulness for 20 minutes a day for two weeks. This may have affected the results because most studies show that mindfulness is only effective when compounded regularly. When practice is staggered, the practice may be less effective. It is also important to note that the one participant who had significant improvement with symptoms usually practiced double the instructed amount of time and did not miss any days. It is possible that more time may be required to have an effect on a person with ADHD than a person without, or it may be the issue of skipping days, or a combination of both. As this experiment was not performed in a laboratory setting, a multitude of external variables may have affected the results as well, although it should be noted that Participant 1 reported the largest amount of external stressors and obligations of the three. It is also possible that just as medication and behavior therapy don't work for everyone, mindfulness may also have that issue. However, the significant change experienced by Participant 1 is an indicator that there may be some benefit to certain people who use this practice, and further, more extensive testing should be performed in the future.