

# The MindYou Project: Mindfulness in Schools

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## Background

With emerging concerns of non-attendance, reduced test-scores, mental disability, youth and adolescent violence, bullying, anxiety, and depression, schools are increasingly urged to address student mental vulnerability. Although several studies indicate that there is sufficient correlation between youth mental health and development of adult mental disorder to warrant child-targeting preventative action, no such program has emerged. Currently schools convey a multitude of subjects in the interest of public and personal health and safety, including: health classes, sexual education, drugs, drinking, driving under the influence, etc. These programs are designed to mostly admonish and educate children. None exist, however, to address emotional and mental problems that students will invariably face. Much like physical education not only teaches students the importance of exercise but *also* engages them in sport/ physical activity; there is no equivalent mental education. This paper will explore the feasibility of implementing mindfulness as an effective student mental health program in school to mitigate learning barriers and increase emotional well-being.

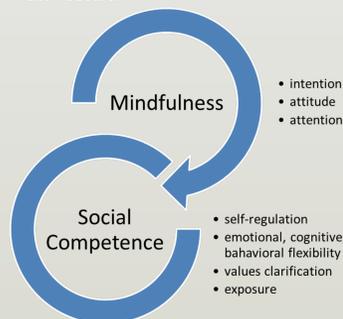
### What is Mindfulness?

Mindfulness is the practice of paying attention to the present moment, purposefully and without judgment. Mindfulness is derived from the Theravada Buddhist practice of Vipassana; however, the practice is not religious in nature. In fact, in more recent years, the potential to practice mindfulness secularly has been of great interest. While it is commonly believed that mindfulness requires one to sit and meditate intensively, this is not simply the case. Mindfulness can be applied in everyday life in any setting and activity, whether it be sitting, eating, walking or talking. Rather than going through the motions of daily life passively, an individual brings awareness to present moment experiences. In practice, this is thought to lead to a feeling of peace and calm of the mind. In psychology and medicine, mindfulness is used as a therapeutic technique that focuses on reducing stress and improving mental and physical well-being (Kabat-Zinn, 1990).



### Mindfulness Research

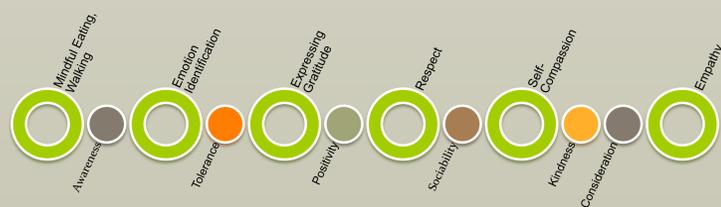
#### Past Research



Clinical psychologists, physicians, and scientists have become interested in studying the effects and potential of introducing mindfulness to adolescents. In recent studies, mindfulness-based intervention has been shown to have a variety of positive effects on adolescents, including a decline in anxiety and increase in self-esteem (Brown et al., 2011), a decline in depression (Biegel et al., 2009), and a reduction of stress responses (Mendelson et al., 2010). In particular, one study selected adolescents who showed aggressive behavior at school and had poor social conduct. The researchers implemented a mindfulness-based intervention and found that the mindfulness intervention reduced aggression and bullying behavior, indicating that mindfulness may help reduce delinquent behavior and the stress caused by dysfunctional domestic situations. (Singh et al., 2007)

## Mindfulness Curriculum

Our curriculum is designed to incorporate mindful and positive practices into the daily lives of the students. This will be accomplished through 30-minute sessions for 8 weeks, twice a week. The curriculum is organized into eight mindfulness themes :1) Introductions and Ice breakers 2) Foundations of Attentional Anchors and Quietening Practices 3) Mindful Applications to Daily Activities 4) Managing Difficult Feelings 5) Cultivating Positive Feelings 6) Communication 7) Self-Compassion 8) Empathy. Students practice mindfulness in class for Twenty-Five minutes, twice per week, and are given an optional workbook to engage in mindful awareness outside of school. By combing various themes of mindfulness, this curriculum successfully gives students the skills they need to be mindful of their environment, their feelings, and the feelings of others.



## Abstract

Several studies have posited mindfulness-based interventions as effective in controlling various contributing emotional and mental factors. Mindfulness has recently surged as a prominent interest for psychological treatment among researchers and clinicians for its capacity as a multi-faceted therapeutic technique. The efficacy of these interventions have been repeatedly shown through improvements to anxiety and other derivatives of stress (Biegel et. al 2009), lack of sleep (Greeson et. al.), depression (Kuyken et al, 2012), trauma (Follette, Palm, & Pearson 2006), psychosis (Chadwick, Taylor, & Abba et. al. 2005), attention-deficit hyperactivity disorder (ADHD) (Zylowski et. al. 2007), memory (Diamond 2011), and sustained attention (Morrison 2014). While several benefits exist, the scope of this paper will only include those that target some of the more common difficulties students face: anxiety, smaller stress, depression, and learning barriers (cognition).

Due to the existing stigma, an ineffective mental health assessment forum, and lack of access to proper prevention and treatment in schools for students, school-based intervention will need to address and overcome this dilemma. The MindYou Project explores how mindfulness-based intervention can address these problems through specific issue-based mental care as well as prevention. The purpose of the MindYou program is to create a curriculum based on scientific efficacy, economic sustainability, and, if at all possible, political legitimacy.

**The UCLA Lab School is the first to adopt the pilot MindYou Curriculum to address these problems. This curriculum is tested to observe its efficacy in reducing anxiety and depression, while improving attention, mindfulness mastery, and peer relationships.**



## Methods

The study consisted of two 14-week studies (first and second phases of a crossover design) for a total of 28 weeks. This included an 8-week treatment period, and a 6-week follow-up period. During the 8-week treatment period for students, the participants engaged in mindfulness-based curriculum at school twice a week. During the follow-up period, no formal mindfulness was taught to the children, however as part of the mindfulness curriculum teachers underwent brief education in mindfulness for 2 weeks. A follow-up period was used to investigate whether children adopt and sustain mindfulness practices into their daily lives without explicit instruction. Participants were students aged 9-12 enrolled in the UCLA lab school.

Participants engaged in the mindfulness-based curriculum in school during normal school hours twice per week for eight weeks. During these intervention times, participants were given lessons on mindfulness techniques including, but not limited to, breathing exercises and seated meditation.

Entire Classrooms were randomly assigned to either study group, although individual students were not randomly selected. At T1, those who were randomly selected to participate in a pretest filled out four self-report assessments. At T2, there were 3 sets of individual, semi-structured, interviews: teachers, select parents, and select students for the group undergoing the mindfulness curriculum. All teachers of classrooms undergoing the treatment were interviewed.

## Data And Results

In our statistical analysis, we analyzed data from several different surveys:

- Child and Adolescent Mindfulness Measure (CAMP)
- Elementary School Climate Bullying Survey (SCBS)
- Children's Somatization Inventory (CSI)
- Patient Reported Outcomes Measurement Information System (PROMIS) for both (1) child and (2) parent
  - PROMIS – Depression
  - PROMIS – Anxiety
  - PROMIS – Peer Relations

*\*Unfortunately, the results of all these measurements yielded inconclusive data.*

### Example:

#### CAMP

Group #	Group Title	Average Score	Std. Deviation	P-value	Significant?	Control/Treatment	n	Post
1	Pre-Test (182, 788)	70.9032	8.67316	/	/	Control	31	/
1	Post-Test (182, 788)	71.4511	7.4306	0.757	No	Control	82	82
2	Post-Test (182, 788)	71.8333	7.27333	/	/	Control	72	/
2	Follow-up (182, 788)	71.4444	7.94514	0.76032	No	Control	72	72
3	Pre-Test (184, 584)	70.27027	7.14002	/	/	Treatment	37	/
3	Post-Test (184, 584)	69.2364	8.43221	0.50489	No	Treatment	78	78
4	Post-Test (184, 584)	69.2362	8.3768	/	/	Treatment	74	/
4	Follow-up (184, 584)	68.1053	8.4846	0.33409	No	Treatment	74	74

#### SCBS

Group #	Group Title	Average Score	Std. Deviation	P-value	Significant?	Control/Treatment	n	Post
1	Pre-Test (182, 788)	4.857142857	3.428791	/	/	Control	28	/
1	Post-Test (182, 788)	4.538461538	4.382118	0.4074	No	Control	78	78
2	Post-Test (182, 788)	4.428571429	4.488888	/	/	Control	71	/
2	Follow-up (182, 788)	4.154285714	4.261618	0.7135	No	Control	71	71
3	Pre-Test (184, 584)	0.05	3.507886	/	/	Treatment	40	/
3	Post-Test (184, 584)	4.407407407	3.989073	0.3241	No	Treatment	81	81
4	Post-Test (184, 584)	4.506849315	3.037374	/	/	Treatment	73	/
4	Follow-up (184, 584)	4.100890411	2.941851	0.4234	No	Treatment	73	73

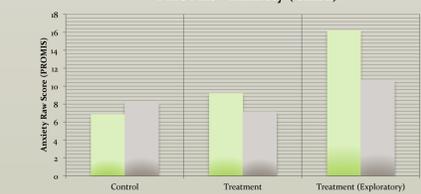
## Exploratory Analysis & Discussion

Although we did see that the data gathered from the results was inconclusive, we found that the tests we used were not sensitive enough to test the high mental health aptitude scores across all measures. However, by setting an exclusion criteria to students with above average (arbitrary quartile range) assessment scores—we were able to revisit the data and draw correlations from an exploratory analysis. Since most subjects receiving treatment or in the control group displayed scores above the national averages for the assessment we can see that the students were already well balanced as a whole. There are, yet, some individuals that performed in the lowest quartile. The below diagram shows the results when comparing students in the lowest quartile range from pre- post- follow-up assessments. When the inclusion criteria was modified to only include subjects who had an initial anxiety raw score of 10 (PROMIS Measure), we then get these results:

Subject	Pre	Post	Difference
1	18	5	-13
2	30	25	-5
3	13	11	-2
4	23	17	-6
5	12	17	5
6	17	13	-4
7	15	14	-1
8	16	4	-12
9	14	11	-3
10	17	8	-9
11	16	4	-12
12	15	11	-4
13	12	4	-8
14	16	16	0
15	13	6	-7
16	12	5	-7
Average	16.1875	10.6875	-5.5

With this new set of data under the new inclusion criteria, the t-test results yield a **significant T-value of 2.87 with a P-value of 0.0037** which is a lot less than the alpha level at 0.05.

### PROMIS - Anxiety (Child)



This study shows it is imperative for schools to implement these programs in conjunction with their existing learning support systems. Although it is possible to sustain programs directed toward child mental well-being *outside* of the school, it would *not* overcome the aforementioned dilemma to confronting this precarious issue. The MindYou program was successful in developing a sustainable program, implementable within schools, with promising indications of proper mental health efficacy

Among children, about 20% experience or will experience some *serious* mental disorder (Merikangas et. al. 2010). These disorders may debilitate socially or academically by reducing executive function, increasing physical sickness, and/or marginalizing children emotionally. While the problem begins in childhood, the effects extend, exacerbated, into adulthood. The prevalence of and burden caused by child mental health issues are immediate public health concerns that must be prioritized by schools.

The MindYou project will continue to review the efficacy of mindfulness in schools at the UCLA Lab School, children with and without diagnosed mental disorders, as a tool for progressive mental health. We are confident that the program will be integrated into standard educational policy, recognized as imperative as any other class.