This project is a collaborative effort between students, faculty members, and staff from Duke and UNC Chapel Hill. We collect mental and physical health data from two 7th and 8th grade classes at Phillips Middle School in Chapel Hill. These students partake in a weekly yoga class protocol, led by instructors from the Durham based nonprofit Y.O.G.A. for Youth. Their classroom teachers integrate mindful moments and journaling into the school day. This project approaches data collection from both a qualitative and quantitative framework. We gather data from scales and surveys that measure emotional resilience, anxiety, and depression and from physical measurements of weight, height, and heart rate. We also conduct interviews and focus groups with students and teachers to better understand their experiences with our study.

In the past, our research has involved the introduction of an afterschool yoga intervention to adolescent students. This year, our methods changed slightly, and we shifted to an in-class intervention that delivers a weekly hour-long yoga class led by a certified Y.O.G.A. teacher and teaching assistant, as well as daily five-minute “mindful moments”, ranging from breathing exercises to yoga poses to journaling. To measure the progress of the students, we recorded health data including height, weight, and pulse, and survey data that measures emotional health and regulation, at three points during the semester to determine the overall effect of the program on these measures in the students. These results were compared against similar measures from a control group that were not given the mindfulness motivation. Before and after one yoga class, we administered a Brunel mood scale to determine the effect of the singular yoga class on students moods.

Our data shows that students who participated in the yoga program, as compared to our control group, reported a significant decrease in difficulty with emotional regulation (or, an increased ability to regulate their emotions). Similarly, the yoga students showed a decrease in difficulty engaging in goal directed behavior (or, an increased ability to perform goal directed tasks). We used the DERS scale for these measures. Qualitative data obtained through focus groups supports the quantitative data collected. Students told our research team members that after participating in the yoga study, they felt more academically motivated and found it easier to focus. Additionally, research team members observed yoga classes and found that throughout the semester, students behavior and ability to focus in class improved.

An analysis of our results shows that the participation of adolescents in our yoga and mindfulness intervention increased ability to regulate emotions as well as ability to engage in goal directed tasks. In an environment such as middle or high school, these characteristics and behaviors can greatly improve one’s chance of achieving success as well as emotional, physical, and mental well-being. By exposing all adolescent students to mindfulness practices at a young age, we can equip them with the necessary tools to maintain their wellness throughout all stages of their lives.

In the future, we would like to expand the reach of our study by extending our intervention into middle schools throughout Durham and Chapel Hill. This will not only increase the number of students that are exposed to the intervention and equipped with these tools, but also increase the number of participants in the study, allowing us to practice a more robust experimental design. Also, since we performed our intervention during the school day this year, compared to during an after school program in past years, we are looking forward to comparing the effectiveness of the two different methods of delivery.

We would like to thank our Bass Connections faculty, Dr. Khalsa from Duke and Dr. Berger from UNC-CH, our Project Manager Elizabeth Harden, and our graduate team member Katherine McMahon. We would also like to thank Kenneth Strickland, Victoria Smith, Aarti Shridar, and Leticia Garcia-Martinez from Y.O.G.A. for Youth North Carolina as well as Danielle Riley, Megan McDonell, Mei-Yun Gibson, and all of our student participants from Phillips Middle School for helping us conduct our research.