

Springboard Capstone Project Proposal

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The Question:

- **What's the relationship between psychological flexibility and mental health outcomes in college students?**
- How can universities offer student wellness services accordingly?

The Problem:

The problem I want to solve is improving **mental health on US college campuses**.

Recent surveys from the [National Alliance on Mental Illness](#) and [American College Health Association](#) have shown that:

- More than 25% of college students have been diagnosed or treated by a professional for a mental health condition in the past year
- 34.5% of US college students have felt so depressed it was difficult to function
- 56.9% have felt overwhelming anxiety
- 47.7% have felt things were hopeless
- 1 in 12 students have made suicide plans
- $\frac{2}{3}$ of students struggling do not seek treatment.

My Focus Area:

With such a clear and acute issue, **my interest is less around continuing to raise awareness and more about promoting new solutions**. I'm interested in identifying key contributors to college students' mental illness and proposing systematic changes in the services being offered.

Specifically, I'm interested in investigating the relationship between **"psychological flexibility"** (as measured by [the AAQ-II statistic](#)) and mental health outcomes, so as to make actionable recommendations around student wellness services.

My Client:

My direct client for this capstone project will be [the Healthy Minds Network](#), a research lab at the University of Michigan that conducts the Healthy Minds Study (HMS): the **largest annual survey on US college student mental health**.

Through HMS, Healthy Minds aims to prevent mental health crises before they happen by providing university administrations with population-level data reports that summarize key findings and provide actionable insights around where to invest their money and why.

Healthy Minds cares about this problem because universities are their clients, and universities care about their students because they are their customers.

Actionable Insights:

With my analysis, I plan to equip Healthy Minds and university administrations with **actionable recommendations around student mental health services**.

Specifically, I hope to provide stakeholders with the information they need to justify the expansion and promotion of *preventative* services like mindfulness meditation that have been proven ([past research](#)) to improve psychological flexibility and mental wellbeing.

The Data

For my analysis, I will be using the Healthy Minds Study's 2016-2017 national college mental health survey data, including responses from over 50,000 students at 130+ universities across the country.

For more information, here is the [HMS 2016-17 Data Report](#) and general page for all [HMS Data Reports & Questionnaires](#).

I have acquired the data by requesting research access through the Healthy Minds website, and by directly contacting the Principal Investigator -- Dr. Daniel Eisenberg.

My Approach

1. Use the codebook to familiarize myself with the 2016-17 dataset, survey modules, individual questions, & relevant variables.
2. Clean the data in preparation for analysis.
3. Create summary graphs similar to the 2016-17 data report.
4. Investigate the quantitative relationship between psychological flexibility (i.e. AAQ-II) and key mental health indicators (i.e. flourish, deprawsc, anx_score).
5. Investigate pairwise relationships between psychological flexibility (i.e. AAQ-II) and demographic variables (i.e. race, gender, degree program).
6. Build a predictive model that explains the relationship between students' demographic info, their psychological flexibility, and mental health outcomes.

My Deliverables

1. Code in the form of Jupyter notebooks, walking through my step-by-step analysis
2. Final paper (2-page brief), summarizing my key findings and recommendations.
3. Slide deck walking through my analysis results and relevant visualizations.