



THE OHIO STATE UNIVERSITY

Acree Memorial Hack Fest for Mental Health 2021

Team 13



Prompt:

To investigate patterns and generate insights into college students receiving mental health services and the overall mental health of those students.



Findings:

- For each of the four questions asked about mental health, >70% of respondents experienced symptoms of mental health issues
- Only ~20% of those surveyed attended therapy
- So which students are most likely to seek counseling?



Findings:

- Students demonstrating high anxiety levels and the inability to stop worrying, but not necessarily lack of pleasure or depression were most likely to have attended therapy/counseling



Data Preprocessing:

- Of the entire dataset, only questions 32 through 38c were selected
- These questions asked participants about frequency of symptoms of mental health issues and access to medical professionals for treatment
- In total, there were 702 participants with 6 attributes being used in the analysis



Methods:

- The percentages of respondents suffering from mental health problems was calculated through division
- Logistic Regression was chosen for the classification algorithm
 - This was due to the binary nature of the target attribute



The Model

- A third of the dataset was chosen for testing
- K-Fold cross validation measured with accuracy score
- Brute force algorithm used to find highest percentage to have sought therapy



Results

- Q32 and Q33 had negative Beta scores, while Q34 and 35 had small but positive Beta scores

Intercept: 2.58245882

Attribute	Beta-Score
anxiety/Q32	-0.19648408
stop_worrying/Q33	-0.29056985
anhedonia/Q34	0.00909317
depression/Q35	0.00705883



Results

- Students who scored highest for the 'Anxiety' and 'Stop_Worry' attributes but lowest in 'Anhedonia' and 'Depression' were more likely to seek therapy

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depression/Q35	0.00705883



Results

- Even then, they were only ~34% likely to have sought counseling
- Q32 and Q33 had negative Beta scores, while Q34 and 35 had small but positive Beta scores
- Beta scores suggest that Anhedonic and/or depressed students less likely to seek therapy



What might help?

- Removal of stigma surrounding depression
- Recognition that anhedonia may be a symptom of depression
- Encouragement of peers who exhibit symptoms to seek guidance



Questions?