



Mental Health Assessor through Habit Tracking

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In light of recent measures made by MOE to address the issue of the mental wellbeing of youths in Singapore, we decided to use AI to aid in the detection of a student's state of mental health as we understand that many youths tend not to notice if they have poor mental health subconsciously, making it a silent killer.

Possible Solution: Tracking of a person's current quality of life and habits to determine their level of mental health from low to high

As shown by the Singapore mental health study conducted by the Institute of mental health, mental health disorder have been on the rise for Singaporeans since 2010. By developing this AI, we hope for early detection of mental health risks, to ensure people do not have to suffer in silence and seek help early.

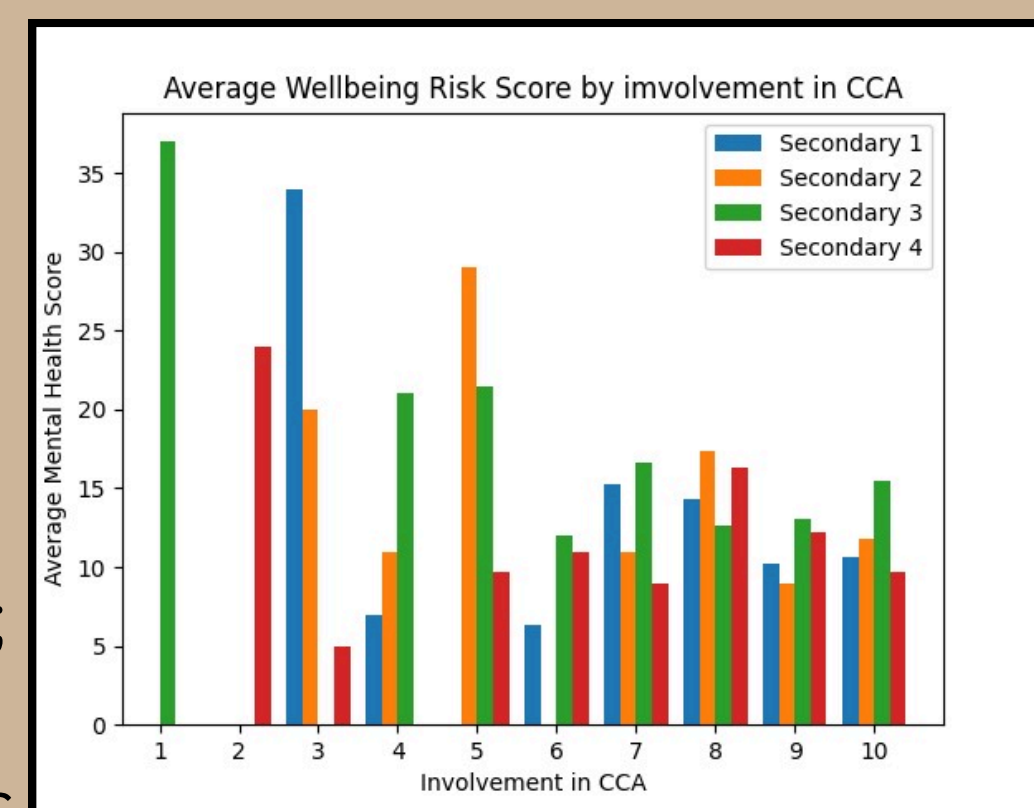


Method of Classification of Data

Use of DBSCAN clustering to distinguish states of mental health based on :

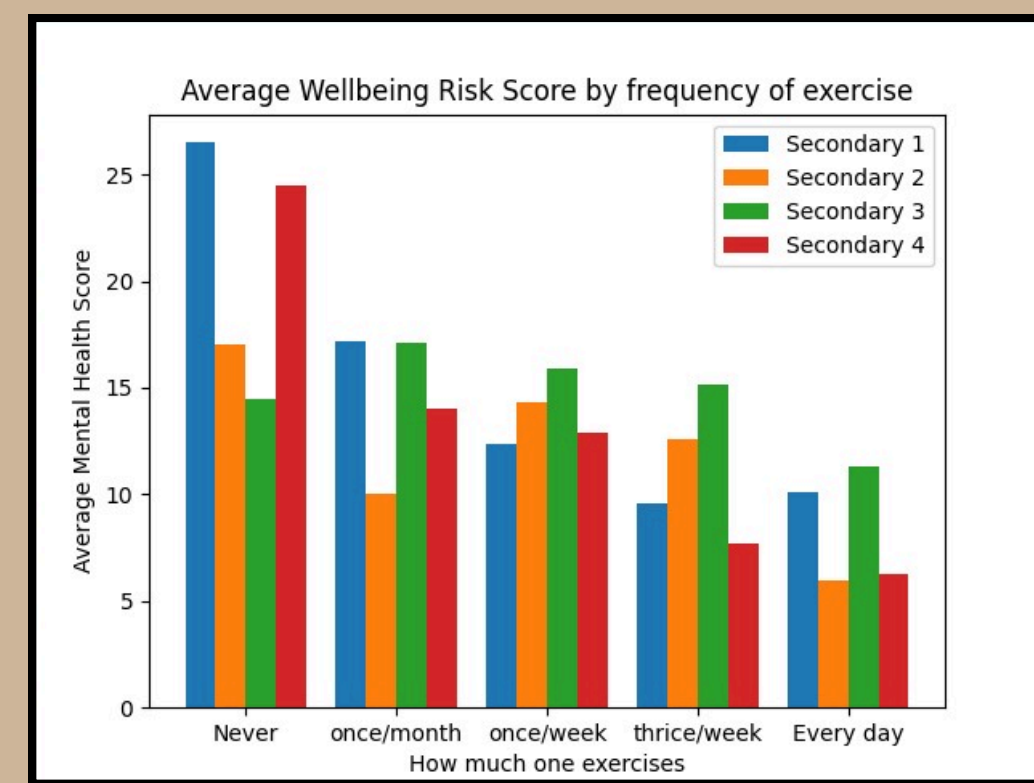
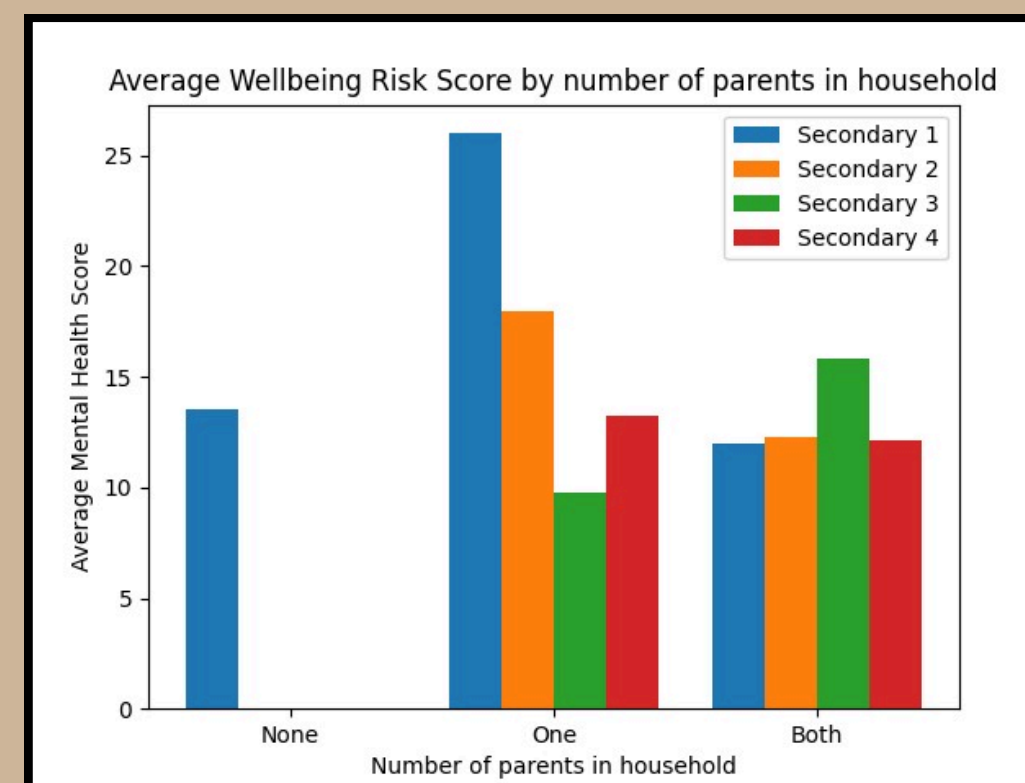
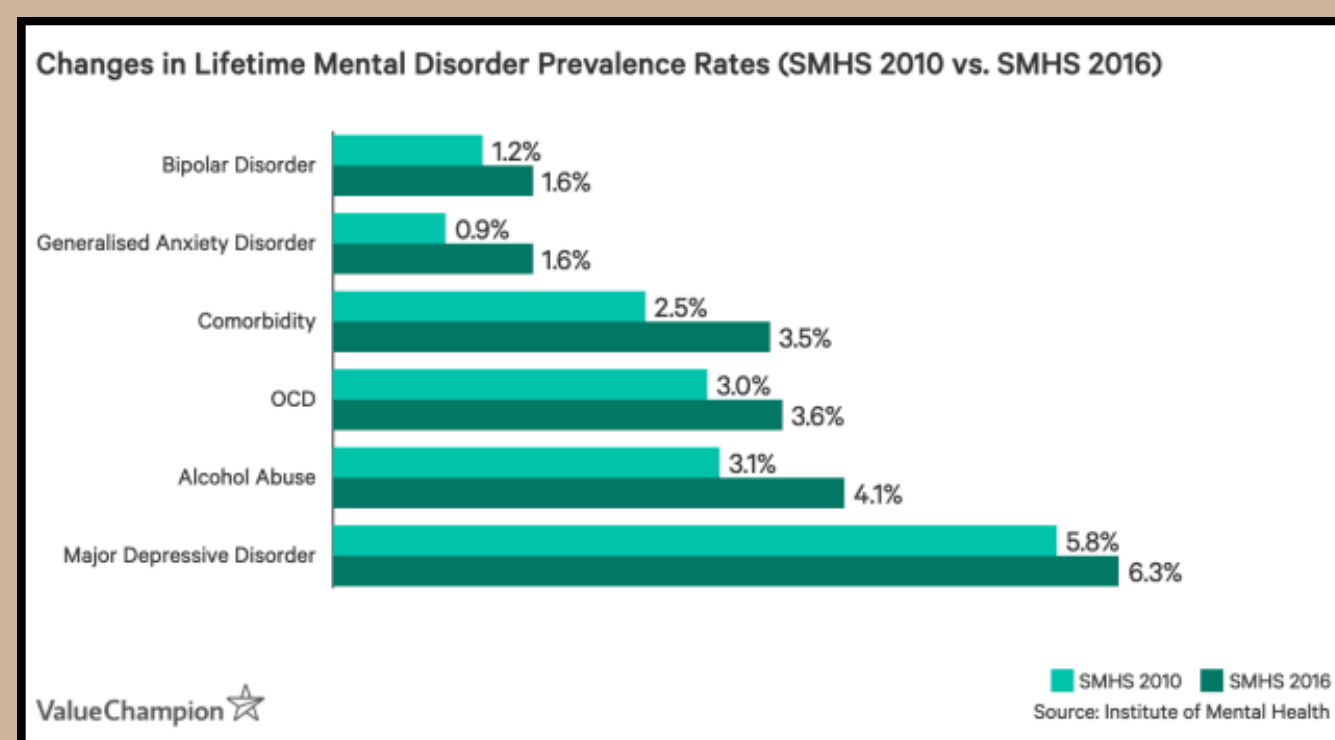
- Rate of attendance for CCA,
- Range of income of family,
- Number of Siblings in family,
- Amount of time spent exercising;

as data sets tended to concentrate around specific areas



Why We Chose This

Through the use of clustering , machine learning would involve identifying trends or groups amongst large sets of data. Our end goal is to be able to determine the state of mental health based on a youth's life situation and habits. Thus, this will help us recognise the signs and administer help early.



We surveyed close to 200 students regarding their routine habits and graded their actions to represent their state of mental health from poor to moderate to high

Based of testing, the algorithm proved to be 65% accurate at classifying any given point of data into the accurate risk group.

Limitations

- Limited sample size due to lack of resources
- Certain factors reflects inadequately to differentiate one's mental state, creating a grey area with some inaccuracy

Future Workarounds

- Better choice of factors
- Attempt to send the surveys on online platforms
- Address a broader audience