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The Effect of Dietary Patterns & Mental State

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ABSTRACT

- The most common forms of mental disorder treatment include therapy, medication and physical activity. However, it is not quite as common to look at dietary habits to improve mental health.
- An anonymous online survey was administered through a google form.
- The survey included questions on the individuals general demographic, diet parameters, and various aspects of their mental health and mood states.
- There is an association between positive mood states and a healthy dietary pattern.
- Through the results that were obtained via the survey, it is concluded that there is a correlation between a healthy, balanced diet and a positive mental state.

INTRODUCTION

- In recent years, traditional Western, or high fat diets, have been correlated with a significant increase in mental health disorders when compared to diets such as the vegetarian, East Asian and the Mediterranean diet.
- Diets that were more plant based such as the Mediterranean diet were seen to have decreased feelings of anger, fatigue, confusion and anxiety (De Vries et. al, 2017)
- A study found that those who consumed more fruits and vegetables showed less signs of mental stress. High amounts of processed food correlated with higher levels of mental stress. (Xiaona Li, et al. 2021).
- Another study showed that there was no statistically significant correlation between depressive symptoms and the vegetarian diet. The only depressive symptoms that were seen were found in Vietnam, which showed that there was a slight decrease in mental health from those that consumed the vegetarian diet. (Santivanez-Romani, et. al 2018).
- Due to the large consumption of high fat diets increasing nationwide, it is important to study how these foods can affect someone's mental health.
- We expect that people who consumed diets that consisted more plant based foods would be less likely to exhibit symptoms of mental health disorders such as depression and anxiety.

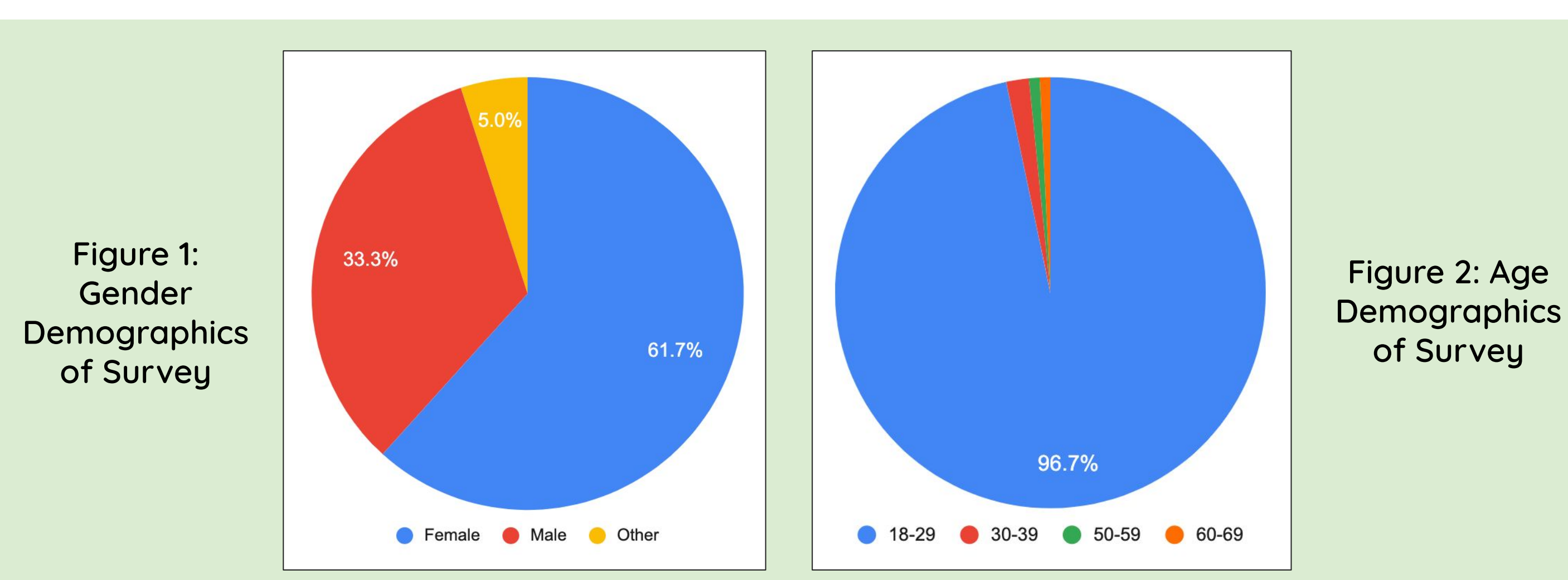
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METHODS AND RESULTS

| | |
|-------------------------------|-----------------------------------------------------------------------|
| DEMOGRAPHICS | Males and Females; Adults: 18 years or older |
| NUMBER OF PARTICIPANTS | 131 |
| SURVEY | Diet, mindset, stress, resilience and mental distress |
| DELIVERANCE | Email, Social Media (GroupMe, Instagram, text message), word of mouth |
| ANALYSIS | Pearson's Correlation in SPSS version 25.0 |

DEMOGRAPHICS



| RELATION | TYPE OF RELATION |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| FAST FOOD AND HOPELESSNESS | <u>Positive</u> correlation between feelings of hopelessness and increasing fast food consumption. R=0.325, (p=0.01) |
| WHOLE GRAINS AND RESTLESSNESS | <u>Negative</u> correlation between whole grain consumption and restlessness R=-0.275, (p=0.03) |
| BEAN CONSUMPTION AND HOPELESSNESS | <u>Negative</u> correlation between increasing bean consumption and hopelessness. R=-0.259, (p=0.05) |
| FRUIT CONSUMPTION AND CONTROLLING STRESS | <u>Negative</u> correlation between feeling stress is negative and fruit consumption R=-.215, (p=.021) |
| CAFFEINE AND WORTHLESSNESS | Caffeine consumption is <u>positively</u> correlated with feelings of worthlessness R=.326, (p=0) |

Table 1: Points of significance between mood and aspects of diet

DISCUSSION

- Consumption of beans, whole grains, nuts and fruits were associated with traits of improved mental health
- Increasing dairy, fast food, candy and caffeine consumption were associated with negative traits related to mental health
- Results for dark leafy green vegetables, multivitamin supplements and fish consumption were mostly statistically insignificant but generally showed an improvement in mental health

CONCLUSION

- Following a generally healthy, balanced diet and avoiding fast food, caffeine and candy will improve mental health the most.
- Further research could be done on more specific categories (ex. Separate chicken/poultry from red meat in the survey).
- For the type of diet that is being followed, eat as diverse as possible and make sure to meet nutritional needs.

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