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Correlation Between Fruits and Vegetables and Mood

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Correlation Between Fruit Consumption and Mental Health

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HWS 410 CURE

Presenters: Faith King, Roy Jacobson, Lanygah Jackson, Kristian Ingebrigtsen

Increased fruit consumption correlates with a decrease in feelings of restlessness and depression

INTRODUCTION

- Fruit consumption in the United States is known to be below the recommended amount
- Fruit consumption is critical to a healthy mental functioning (JV. Rooney et al., 2013)
- The purpose of this study is to determine the correlation between fruit consumption and mood
- Is there a relationship between fruit consumption and increased mood?

METHODS

Deliverance: social media (Instagram, Reddit, Snapchat) and text messaging (GroupMe)

Participants: 153

Demographics: Male/Female, 18+

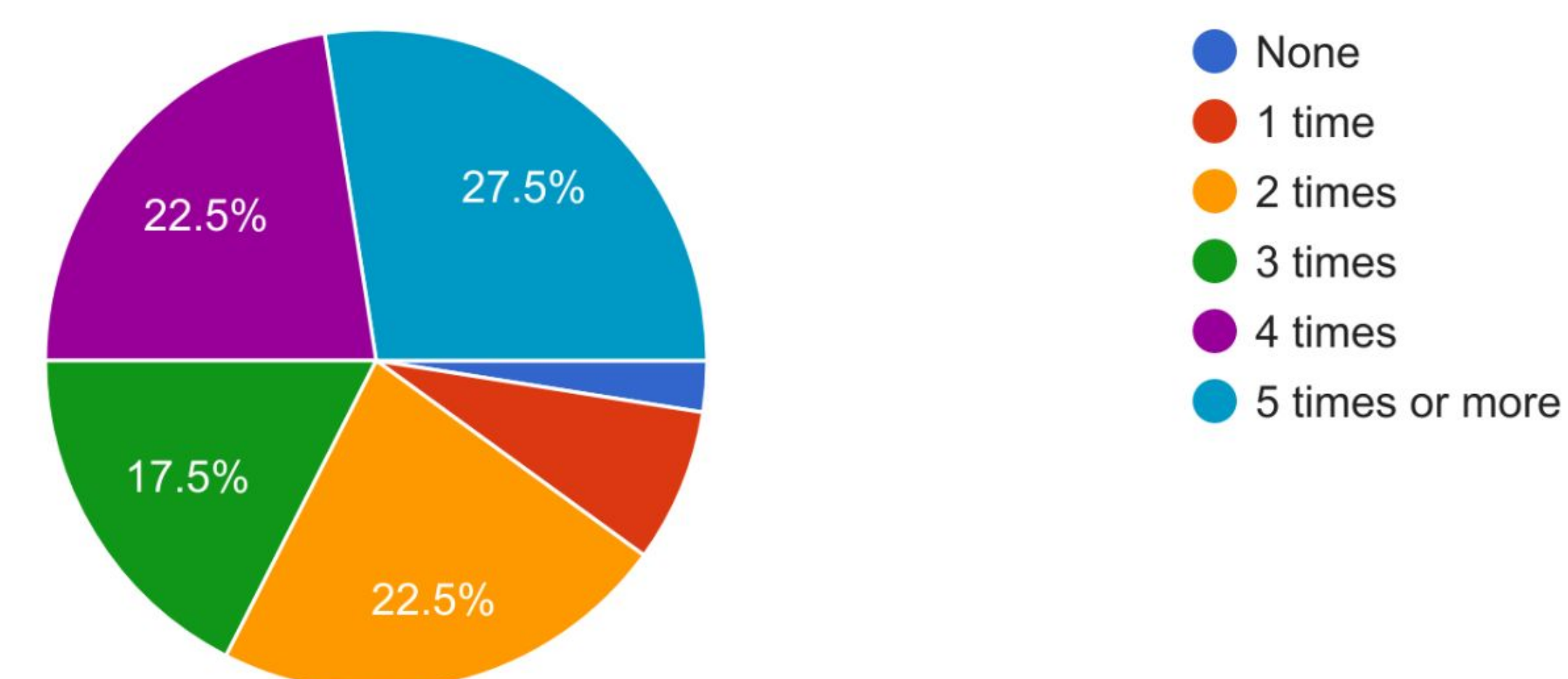
Analysis: Pearson Correlation Coefficient

RESULTS

- **Negative correlation** between fruit consumption and feeling restless or fidgety
 - $r = -0.263$, $N = 151$, $p = 0.001$
- **Negative correlation** fruit consumption and feeling so depressed that nothing could get you out of bed
 - $r = -.291$, $N = 150$, $p = 0$
- **Positive correlation** between fruit consumption and the amount of exercise performed in a week
 - $r = .363$, $N = 153$, $p = 0$
- **Trending negative correlation** between eating fruit 5 or more times a week and consuming caffeine 5 or more times a week.
 - $r = -0.155$, $N = 151$; ($p = 0.057$)

Figure 1. Response data on weekly consumption of fruit. 2.5% never did, while 27.5% consumed fruit 5+ times

On an average week, how many times do you consume fruits?



During the past month, about how often did you feel RESTLESS or FIDGETY?

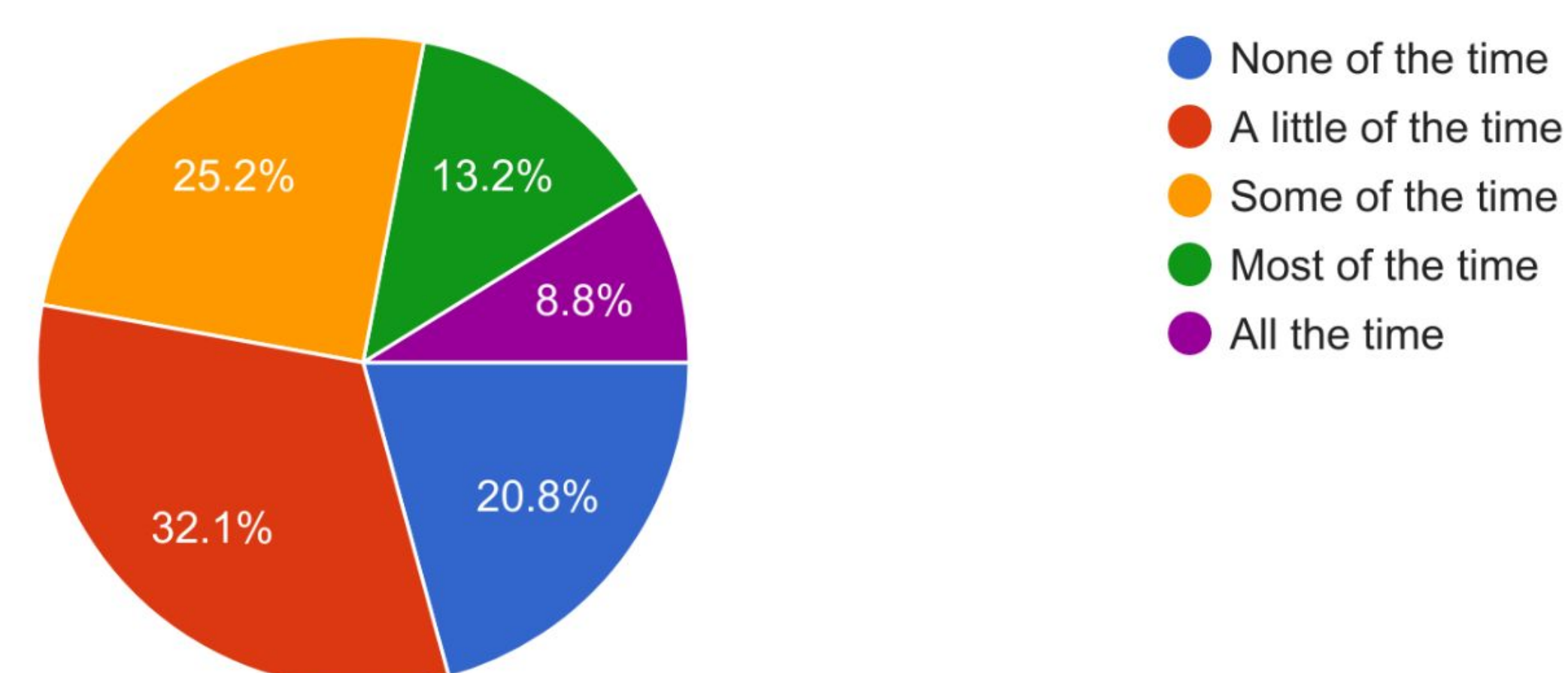
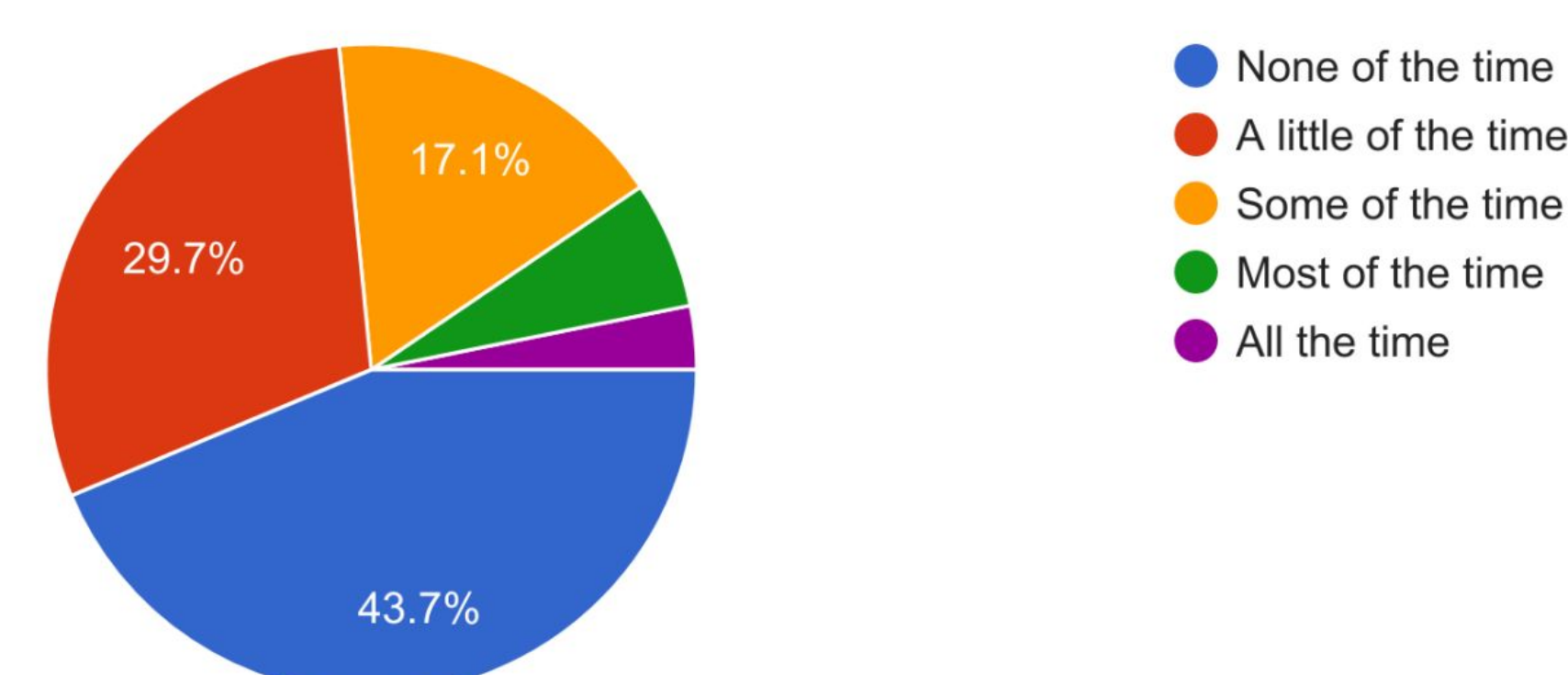


Figure 2. Response data on feeling restless and fidgety. 8.8% felt this way all the time, while 20.8% felt this none of the time.

Figure 3. Response data on feeling depressed. 3.2% felt this way all the time, while 43.3% felt this none of the time.

During the past month, about how often did you feel SO DEPRESSED THAT NOTHING COULD CHEER YOU UP?



DISCUSSION

Based on our results:

- Participants with high levels of fruit consumption are more likely to exercise throughout the week.
 - This relationship reflects a healthy lifestyle
- Fortunately, supporting our initial hypothesis, there was significant correlations between fruit consumption and mood
 - Our research indicates that increased fruit consumption can have a positive effect on mood and decrease feelings of nervousness, hopelessness, restlessness, depression, feeling everything is an effort, and worthlessness
 - Potentially due to the fact that fruits are high in antioxidants and polyphenols that impact several biochemical pathways impacting mood.

CONCLUSION

- Our study suggest that there was a significantly negative correlation between low moods such as stress, anxiety, depression or hopelessness and fruit consumption.
- The higher amount of fruit consumed, the lower reportings of a low mood.
- Further research may investigate the impact of fruit consumption on regulating stress in older populations versus younger ones.

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