

Can environmental factors such as stress, nutrition, exercise, and technology affect the severity of tics in Tourette's syndrome patients?

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INTRODUCTION

The purpose of this study is to investigate the interaction between nutrition, environmental factors, and sleep patterns impact on the frequency and severity of tics in individuals with Tourette's disorder and other tic disorders. By shedding light on the complex relationships between nutrition, environmental factors, sleep patterns and tic symptoms, this study may help to reduce the stigma and misunderstanding surrounding these disorders and contribute to a better understanding of the challenges faced by individuals living with these conditions.

METHODS

- Used a cross-sectional design to investigate the interaction between nutrition, environmental factors, and sleep patterns on tic severity in individuals with Tourette's disorder and other tic disorders
- An anonymous survey was advertised around the University of Dayton's campus
- Asked questions regarding demographics, alcohol consumption, hours of sleep, stressful situations, and social interactions and how these affect tic occurrences
- Questions were scaled on a range of 1-10
- 29 undergraduate subjects were recruited with ages ranging from 19-21

RESULTS

- 40% were female and 60% were male
- 92.3% were upper middle class while 7.7% were lower middle class
- 79% of the subjects stated that alcohol affects their tics with at least a 5 or more
- 92.9% of the subjects stated that stress affects their tics with at least a 6 or more
- 82.1% responded that the severity of their tics is 8 or higher when stress is involved
- 95.6% of the subjects said that their tics are a 5 or higher on a scale of 1-10 while being in overwhelming social interactions
- 27.6% answered that a full 8 hours of sleep shows to alleviate their tics
- 20% of people who take supplements find that they help a lot with their tics
- 33.3% of the respondents found little to no help at all using supplements to treat their tics
- The p-value was greater than 0.05 for all variables, thus making the results not statistically significant

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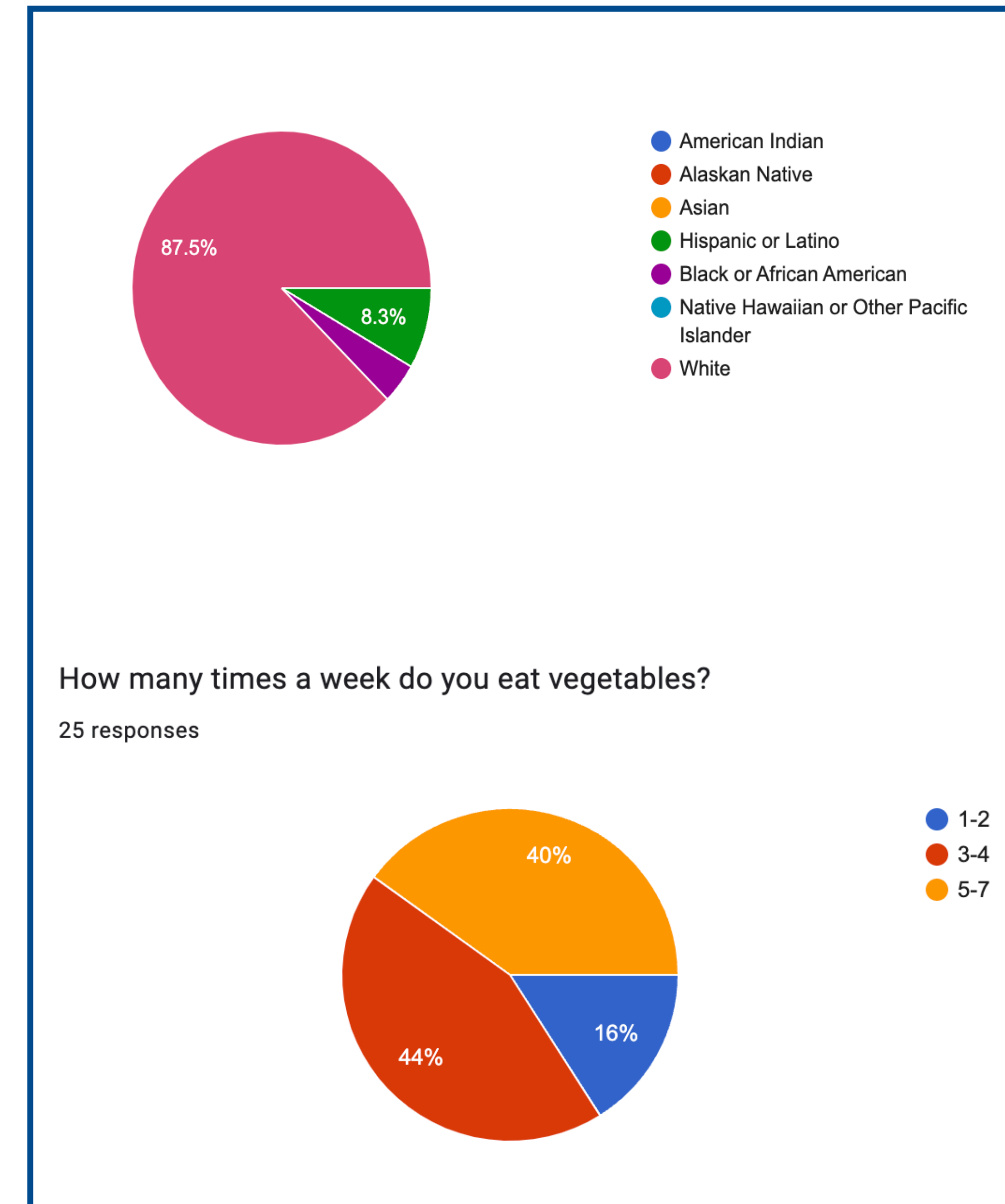


Table 1

Effect of conditions on tic onsets in males

Measurement (1-10)	Mean	Median	Mode	Standard Deviation
How well has the supplements helped with your tic severity?	6	6	5	2.8
How have stressful situations affected your tic severity?	7.7	8.5	8	2.8
How has obtaining a full 8 hours of sleep affected your tic severity?	6.9	7	10	2.8
How has alcohol affected your tic severity?	6.1	7	8	2.9
How has overwhelming social interactions affected your tic severity?	7.9	9.5	10	2.6

Table 2

Effect of conditions on tic onsets in females

Measurement (1-10)	Mean	Median	Mode	Standard Deviation
How well has the supplements helped with your tic severity?	7.8	8.5	8	2.3
How have stressful situations affected your tic severity?	9	9	9	1.2
How has obtaining a full 8 hours of sleep affected your tic severity?	8	8.5	10	2.4
How has alcohol affected your tic severity?	7.6	8	10	2.3
How has overwhelming social interactions affected your tic severity?	9.3	9.5	10	0.9

CONCLUSIONS

- It is important to note that the sample size is relatively small, and the study may not be representative of the broader population. Additionally, the study relied on self-reported data, which may be subject to bias or inaccuracies.
- Based on the data collected from the 29 undergraduate participants, it appears that stress, overwhelming social interactions, and lack of sleep can all contribute to an increase in the severity and frequency of tics in individuals with Tourette's syndrome and other tic disorders.
- The majority of participants reported that stress significantly affects their tics, with 82.1% reporting a severity of 8 or higher when stress is involved. Similarly, 95.6% of respondents reported that overwhelming social interactions also significantly affect their tics, with 72.4% reporting a severity of 8 or higher.
- Interestingly, obtaining a full 8 hours of sleep was found to alleviate tics for 27.6% of participants and at least help with severity for 51.7% of participants. This suggests that sleep patterns could be an important factor to consider when managing tic symptoms.
- In terms of supplement usage, it appears that roughly half of the respondents found supplements to be helpful in reducing tic severity, while the other half found little to no help.
- Overall, while this study had a relatively small sample size and focused on a specific population of undergraduate students, it provides some insight into the complex relationships between nutrition, environmental factors, sleep patterns, and tic symptoms. Further research with larger and more diverse populations will be needed to confirm these findings and explore potential interventions to better manage tic symptoms.

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