

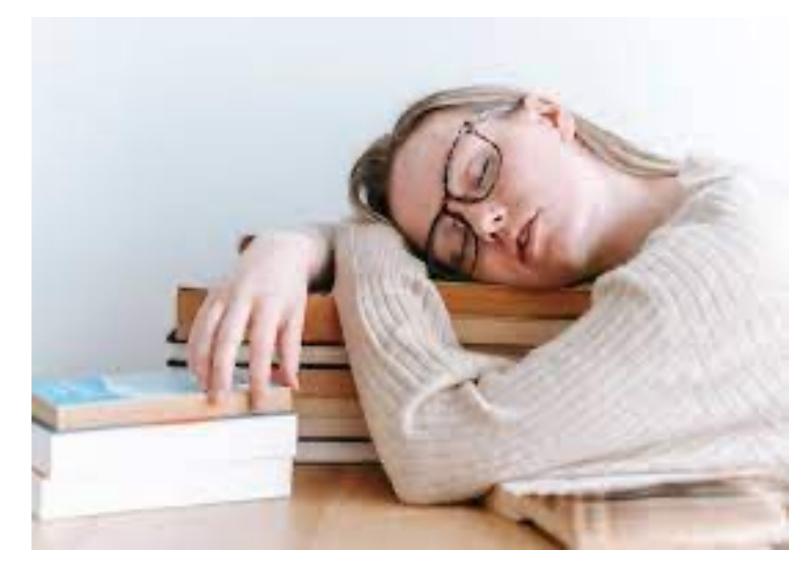
# Fatigue and Dietary Habits of Medical Students

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## Introduction

- Fatigue is a common symptom reported by medical students in response to a high stress environment.
- Poor nutrition status and increased levels of fatigue have been shown to have negative impacts on cognitive performance and academic achievement
- The goal of this study is to identify if dietary content and habits that are associated with reported fatigue levels of medical students.



**Aims and Objectives** 

- A) To assess current dietary habits of OUWB medical students.
- B) To assess and quantify reported fatigue levels of M3 and M4 OUWB medical students.



## Methods

- Evaluate dietary habits and FAS
- This was accomplished with a comprehensive survey discerning both healthy and unhealthy dietary habits based on: the MIND (Mediterranean-DASH) food frequency questionnaire (FFQ) and Michielsen et al Fatigue Assessment Scale (FAS)
- Medical students in M3 and M4 years were invited via email to participate and complete the survey questionnaire online using Qualtrics.



Survey

- Twenty-four students completed the
- Survey responses were divided into healthy and unhealthy dietary habit groups based on a point based system according to recommended dietary habits
- A two sample t-test was used to determine if healthy habits diet group vs unhealthy diet habits group had statistically different median FAS score

Data Analysis: Correlation analysis and Individual dietary habits

- among individual dietary habits
- To determine statically significant difference FAS median scores To determine any statistically significant correlations between dietary habits and FAS scores

# Results

#### **Two sample T-test**

	Unhealthy (n=14)	Healthy (n=10)	Total (n=24)	P-value
FAS, Median (IQR)	25.0 (20.0, 33.0)	19.0 (18.0, 24.0)	23.0 (18.0, 32.0)	0.08221

#### **Correlation Analysis**

#### Spearman Correlation Coefficients (r)

	06	Q7	08	Ω9	010	012	013	014	015	016	017	Q18
	QU	ζ,	QU	QJ	Q <sub>1</sub> 0	Q12	<b>Q1</b> 5	ζ1 -	Q <sub>1</sub> 5	Q <sub>1</sub> 0	Q <sub>1</sub> ,	QIO
r	0.30	0.43	0.05	0.29	0.52	0.63	0.63	0.07	0.62	0.48	0.95	0.48

r value > 0.7 indicates strong correlation

#### Whole grains FAS by serving size

	Less than FAS score of 23 (n=11)	Greater or equal than FAS score 23 (n=12)	Total (n=23)	P-value	
Whole grains Serving size, Median (IQR)	10.0 (5.0, 15.0)	6.0 (3.0, 7.0)	7.0 (4.0, 10.0)	0.03471	

#### Fish FAS by serving size

Analysis Variable: FAS for Fish serving size										
Serving	N			Lower		Upper				
size	Obs	N	Min	Quartile	Median	Quartile	Max	Mean	Std Dev	
1	17	16	15.0	20.0	24.0	33.0	40.0	26.8	7.8	
2+	6	6	15.0	17.0	18.5	22.0	26.0	19.5	3.9	

P-value between FAS scores for 1 and 2+ serving size of fish is 0.0383

### Conclusions

- Reported dietary intake levels of fish and whole grains were shown to have a significant association with reported fatigue levels, indicating that nutrient intake would be an important variable to consider by medical students experiencing fatigue.
- Although we did not find any statistically significant differences in fatigue levels between other healthy dietary habits vs unhealthy dietary habits this may be due to the small sample size.
- Based on the significant findings relating to fish and whole grains, further investigation into their effects on fatigue would be interesting.
- Future studies that include a larger sample size of medical students using a randomized controlled trial design with a placebo group and a intervention group with a diet high in fish and whole grains could provide further insight into the impact these foods on fatigue
- Overall, the effect of diet on fatigue levels, particularly medical students, is an important field to be further investigated.





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