

Non-Academic Screen Time and Its Impact on Diet Quality in College Students



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Introduction

- Most college students do not meet the U.S. Dietary Guidelines for Americans - is screen time a factor?
- Self-reported data has shown that university students were spending an average of 7.29 hours/day being sedentary, a significant increase over the past decade.¹
- College students spend ~9 hrs/day on their cellphones.²
- As screen time increases, children tend to gravitate towards calorically-dense, high energy-dense foods.
- **In adolescents and young adults, screen time and dietary quality has been shown to be inversely related. Further, as adolescents age into young adulthood, dietary behaviors decline while screen time increases.**³

Purpose

To determine the relationship between non-academic screen time and overall diet quality among college students (18-24 years) at a large, northeastern university.

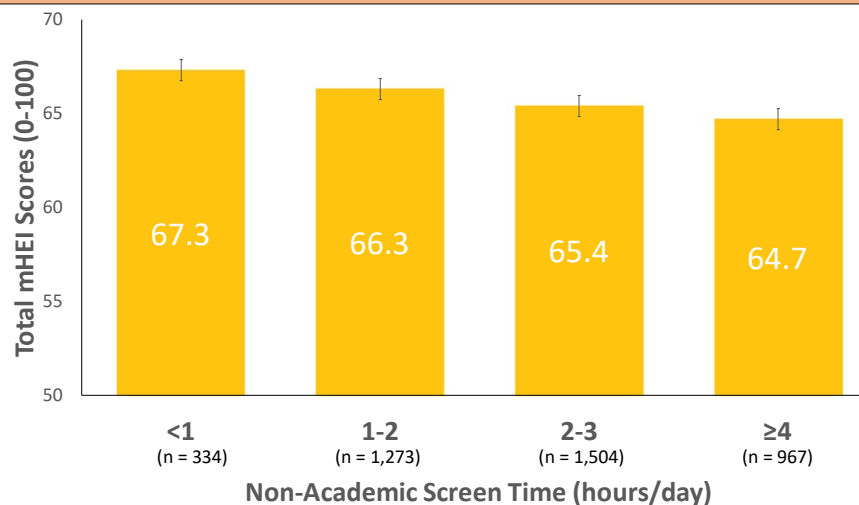
Methods

- Data were collected between 2012-22 from the College Health and Nutrition Assessment Survey (CHANAS), an ongoing, cross-sectional study at a public northeastern university (UNH IRB #5524).
- Participants (n = 4,960) self-reported their daily hours of non-academic screen time using an online (Qualtrics) survey.
- Non-academic screen time users were categorized into 4 separate groups: non-users and <1 hr/day, 1-2 hrs/day, 2-3 hrs/day, and ≥4 hrs/day.
- Self-reported dietary data were obtained from 3-day food records and analyzed using Diet and Wellness+.
- Diet Quality was measured using a modified healthy eating index (mHEI). The scoring system was based on those established in the HEI-2005, -2010, and -2015.
- Differences in mHEI scores (0-100) in relation to non-academic screen time hours were evaluated via ANCOVA; covariates included: age, gender, BMI, and daily steps.

References

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mHEI Scores and Non-Academic Screen Time



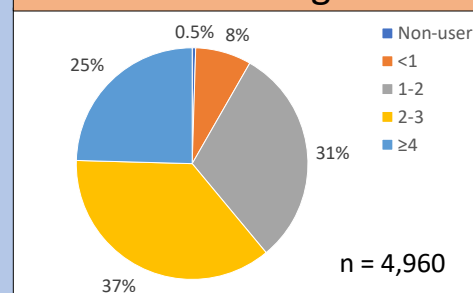
Modified Healthy Eating Index (mHEI) Scoring System

Dietary Component	Minimum Points	Maximum Points	Average Scores
Total Fruit (cups)	0	≥0.8	6.2 ± 3.6
Total Vegetables (cups)	0	≥1.1	7.1 ± 3.0
Total Grains (oz)	0	≥3.0	9.0 ± 1.8
Total Dairy (cups)	0	≥1.3	6.4 ± 3.1
Total Protein (oz)	0	≥2.5	10.0 ± 0.0
Fatty Acids ((MUFAs + PUFAs)/SFAs)	≤1.2	≥2.5	4.1 ± 1.6
Meat and Beans (oz)	0	≥2.5	9.1 ± 1.9
Moderation Components			
Sodium (grams)	≥2.0	≤1.1	5.0 ± 4.1
Saturated Fat (% total kcal)	≥16	≤8	5.3 ± 3.7
Empty Calories (% of total kcal)	≥50	≤19	8.9 ± 2.6
Total = 100 Points			65.5 ± 9.1
<small>HEI 2005- Fruits, Vegetables, Grains, Dairy, Meat and Beans; HEI 2010- Protein, Fatty Acid Ratio, Sodium, Empty Calories; HEI 2015- Saturated Fat</small>			

Participant Characteristics

	Non-Academic Screen Time (hrs/day)				
	<1 n = 334	1-2 n = 1273	2-3 n = 1504	≥4 n = 967	All n = 4,960
Age (years)	18.9 (± 1.1)	18.9 (± 1.1)	18.9 (± 1.1)	19.0 (± 1.2)	19.0 (± 1.1)
BMI (kg/m ²)	23.1 (± 3.5)	23.3 (± 3.5)	23.4 (± 3.5)	23.6 (± 4.1)	23.4 (± 3.7)
Female (%)	255 (63.1%)	957 (62.8%)	1193 (65.9%)	875 (71.8%)	3280 (66.2%)
First-year (%)	224 (55.4%)	841 (55.2%)	1016 (56.2%)	565 (46.4%)	2646 (53.4%)
White (%)	384 (96.2%)	1407 (94.2%)	1648 (93.6%)	1065 (90.6%)	4504 (93.3%)

Screen Time Usage Hours



Results

- On a mHEI scale of 0-100 points, college students ranged between 11.7-87.9.
- After adjusting for covariates, diet quality differed between reported level of screen time (p = <.001).

Implications

College students will be more likely to meet dietary guidelines by decreasing non-academic screen time and focusing on specific dietary components of concern.

Conclusion

Our findings suggest a negative relationship between non-academic screen time hours and diet quality among college students at a northeast university. Further research should examine the relationship between dietary patterns and non-academic screen time hours.

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