



# Screen To Steps: The Relationship Between Screen Time and Physical Activity

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## BACKGROUND

- Modern college students increased screen time for various purposes raises concerns about reduced physical activity and its health impacts
- Higher screen time is linked to lower physical activity, increasing risk factors for obesity and cardiovascular disease (CVD) such as diabetes, hypertension, and dyslipidemia
- Increasing physical activity and cardiovascular fitness (CRF) significantly improves health outcomes, with inactive individuals facing a **24%** higher risk of coronary heart disease

## OBJECTIVE

- To determine if there is a **relationship** between the amount of recreational screen time and intentional physical activity that UCSD college students participate in.

## METHODS

- Collected data from UCSD Students from April 17, 2024 until May 5, 2014.
- Qualtrics surveys were distributed through the BSPH emailing list, Instagram, and word of mouth to classmates.
- Survey consisted of 24 questions, taking about 5 - 10 minutes to complete.
- Exposure variable = recreational screen time → collected by asking average screen time, via self-report.
- Outcome variable = physical activity separated by moderate vs. vigorous activity
- For the statistical analysis we conducted a **Pearsons Correlation** statistic test.

## RESULTS

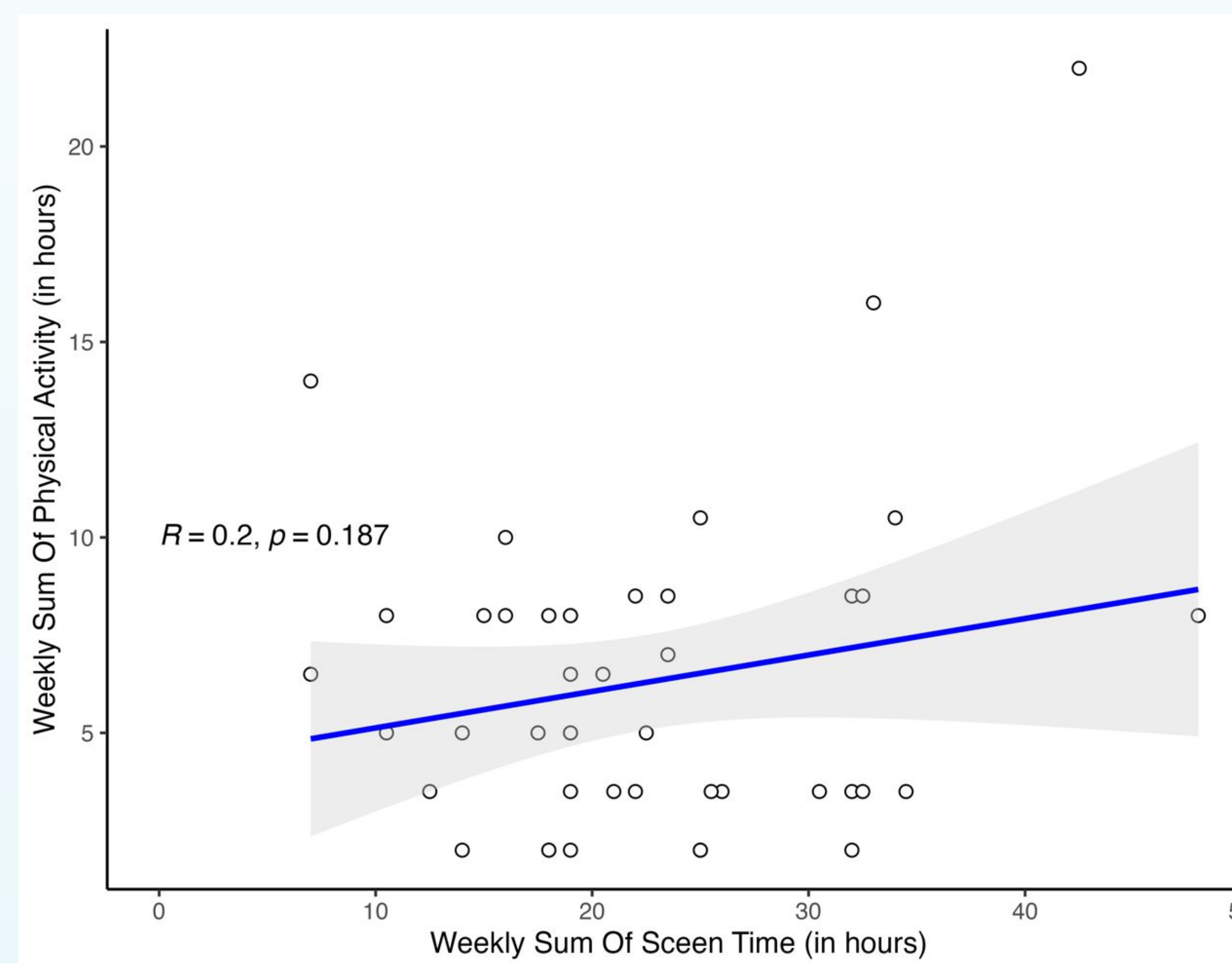
- We received **58 survey responses**
- Data analysis was conducted using the R programming language in R studio
- We removed 13 survey entries due to incomplete data, large outliers, multiple selections, and inappropriate comments
- The data is split fairly between Female (24) and Male (21) respectively
- Data is clustered with a few outliers

Table 1. Survey Demographics

Characteristic	Overall, N = 45 <sup>†</sup>	Female, N = 24 <sup>†</sup>	Male, N = 21 <sup>†</sup>
Age (in years)			
<21	18 (40.0%)	11 (45.8%)	7 (33.3%)
>25	5 (11.1%)	3 (12.5%)	2 (9.5%)
22-24	22 (48.9%)	10 (41.7%)	12 (57.1%)
Race/Ethnicity			
Asian	28 (62.2%)	14 (58.3%)	14 (66.7%)
Black or African American	1 (2.2%)	0 (0.0%)	1 (4.8%)
Caucasian/White	4 (8.9%)	3 (12.5%)	1 (4.8%)
Hispanic or Latino	11 (24.4%)	7 (29.2%)	4 (19.0%)
Native Hawaiian or Pacific Islander	1 (2.2%)	0 (0.0%)	1 (4.8%)
Academic Standing			
Lowerclass	5 (11.1%)	1 (4.2%)	4 (19.0%)
Not a Student	3 (6.7%)	1 (4.2%)	2 (9.5%)
Upperclass	37 (82.2%)	22 (91.7%)	15 (71.4%)
Area of Study			
Non-STEM	26 (57.8%)	17 (70.8%)	9 (42.9%)
Other	10 (22.2%)	5 (20.8%)	5 (23.8%)
STEM	9 (20.0%)	2 (8.3%)	7 (33.3%)
Weekly Total Physical Activity	6.30 (4.06)	6.06 (4.32)	6.57 (3.83)
Weekly Total Screen Time	22.58 (8.74)	21.98 (7.26)	23.26 (10.32)

<sup>†</sup> n (%); Mean (SD)

Table 2. Pearson Correlation Statistic Between Variable



- **Male Results**
  - Weekly physical activity mean is **6.57 ± 3.83 hrs.**
  - Weekly screen time mean is **23.26 ± 10.32 hrs.**
- **Female Results**
  - Weekly physical activity mean is **6.06 ± 4.32 hours.**
  - Weekly screen time mean is **21.98 ± 7.26 hours.**
- **Overall Results**
  - Weekly physical activity mean is **6.30 ± 4.06 hrs.**
  - Weekly screen time mean is **22.58 ± 8.74 hours.**
- **Statistical Significance**
  - Our Pearson Correlation Coefficient was **0.2** indicating a weak correlation between our variables.
  - Confidence interval for the correlation coefficient was **-0.1 to 0.47** indicated in the shaded gray area .
  - The p-value of the test was **0.187** indicating that the data is not statistically significant.

## CONCLUSION

- **Pearson Correlation Coefficient was 0.2** → indicating a **weak positive correlation** between screen time and physical activity
- Our research **DID NOT** find a clear association between the amount of recreational screen time and the amount of intentional physical activity among UCSD college students ( $p = 0.187$ ).
- There is a substantial **gap in research**, as more studies need to be conducted to better understand the relationship between screen time and physical activity among college students.

## POLICY IMPLICATIONS

- There needs to be a change in how schools **educate** students upon the benefits of physical activity.
- More **affordable** programs outside of school are needed to enable college students to become more physically active.

## REFERENCES

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