

COVID-19 Pandemic and the Effects on Screen Time and Sleep Patterns

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Background

Higher levels of screen time, especially before bedtime, can develop sleep irregularities such as insomnia, through melatonin-suppressing effects (Christensen, Publishing).

The prevalence of shorter sleep duration for less than 7 hours is around 32% - 34.9% for college students in California (CDC).

Objectives

To determine the effects of the COVID-19 pandemic on undergraduate students' screen time and sleep patterns.

Methods

A cross-sectional survey was disseminated to undergraduate students across California in May 2021.

Disseminated through social media (Facebook, Reddit, Discord), and email.

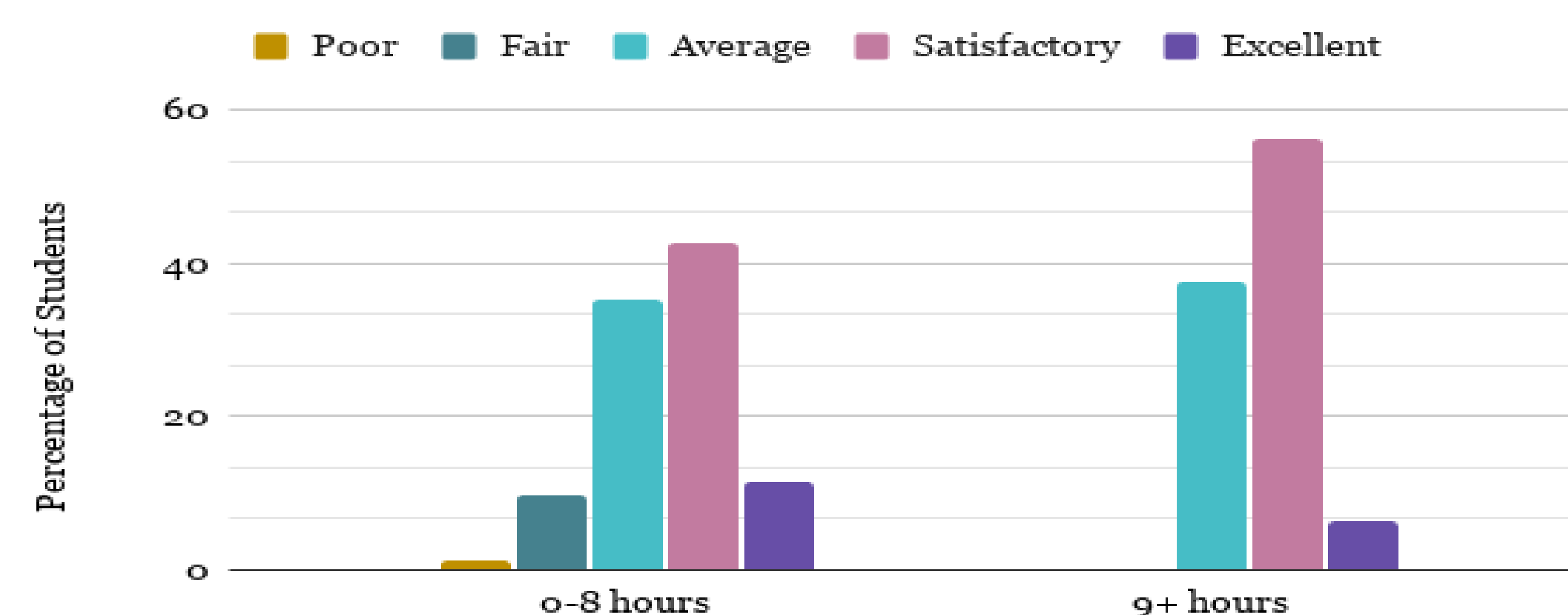
The exposure variable is the COVID-19 pandemic. The outcome variable is screen time and sleep patterns.

273 Respondents.

Table 1: Participant Characteristics		N = 273
Major		
Public Health		8.1%
Biology		8.4%
Business		12.5%
Psychology		7.7%
Other		63.3%
Sex		
Female		55.3%
Male		40.7%
Non-binary		3.3%
Race		
White		51.6%
Black		2.9%
Asian		31.5%
Other		14.7%
Hispanic Ethnicity		
		31.1%

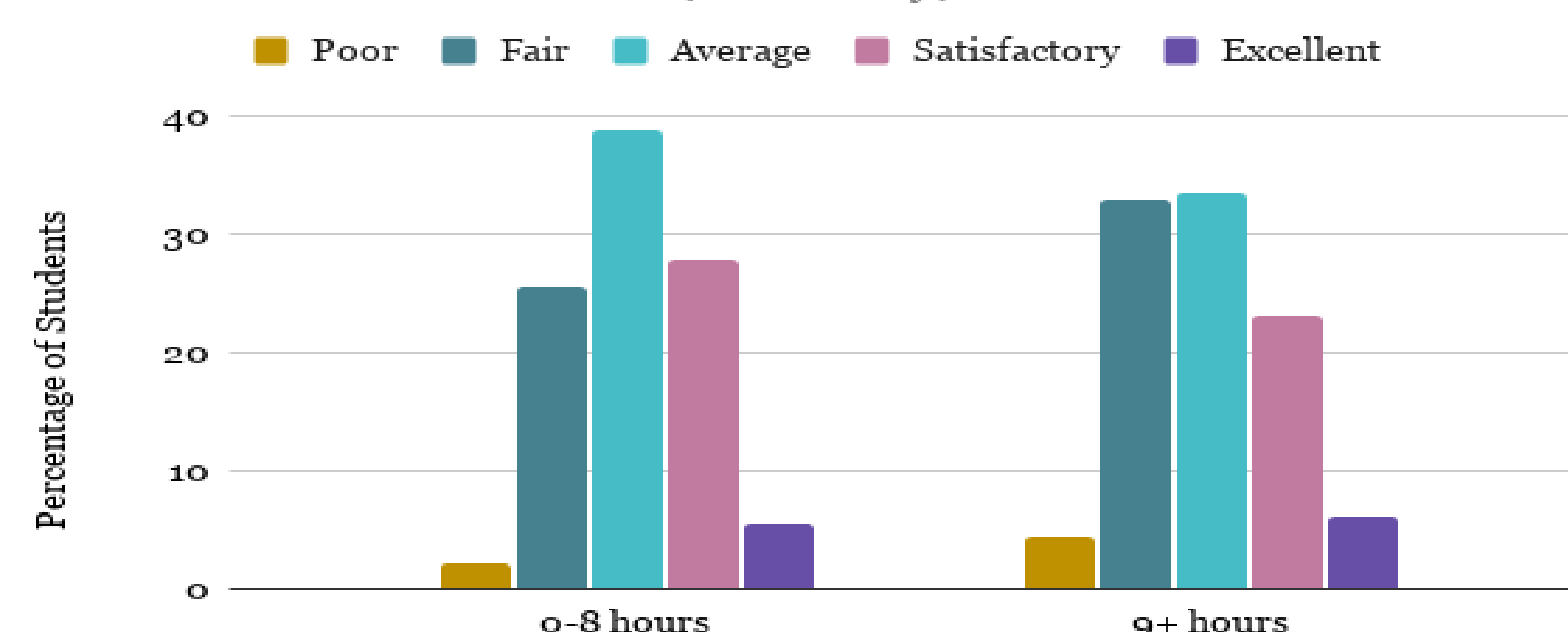
Results

Figure 1: Association Between Screen Time and Sleep Quality (Pre-Pandemic)



No significant association found between screen time and sleep quality pre-pandemic (p=0.596).

Figure 2: Association Between Screen Time and Sleep Quality (Currently)



No significant association found between screen time and sleep quality currently (p=0.572).

Figure 3: Quality of Sleep

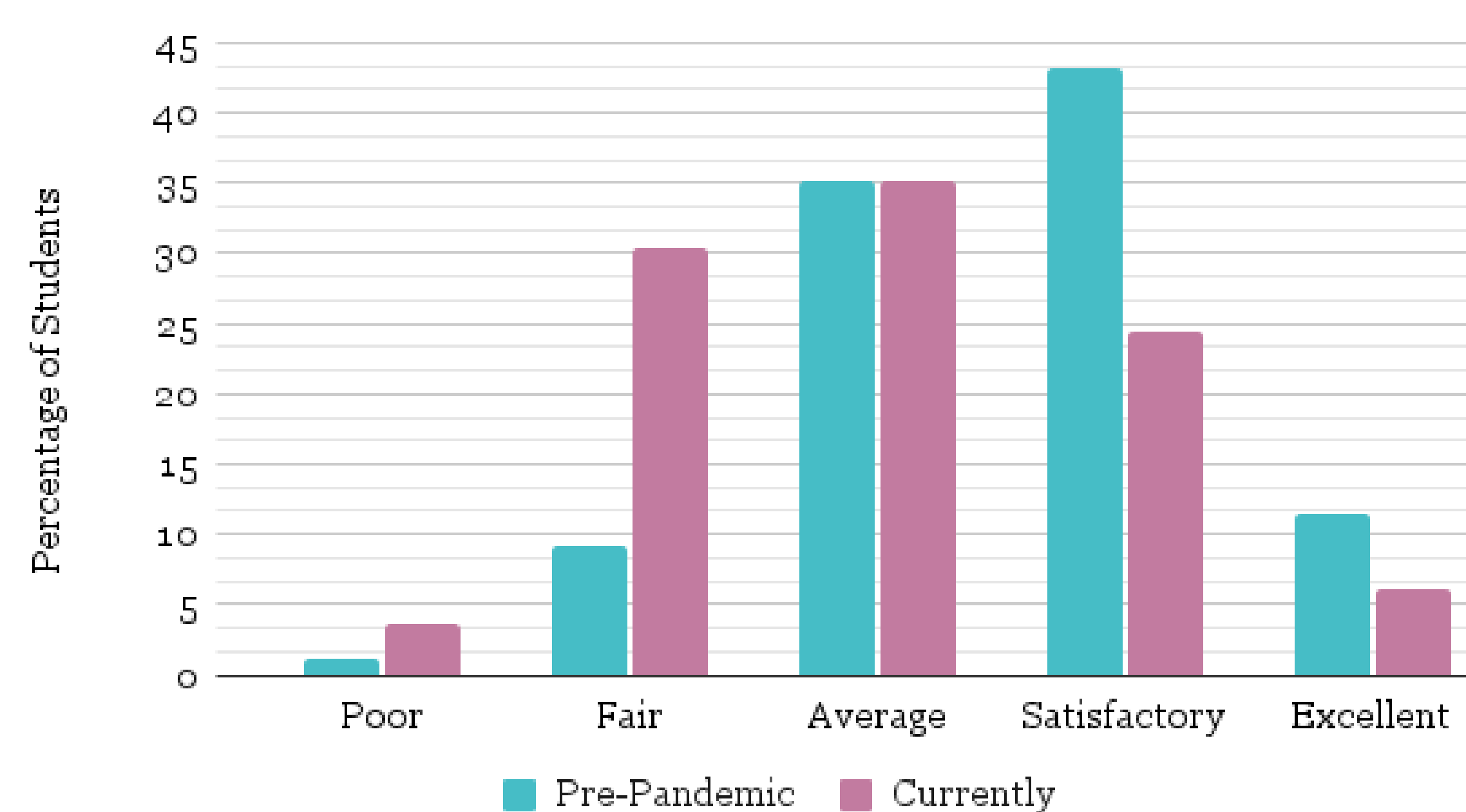
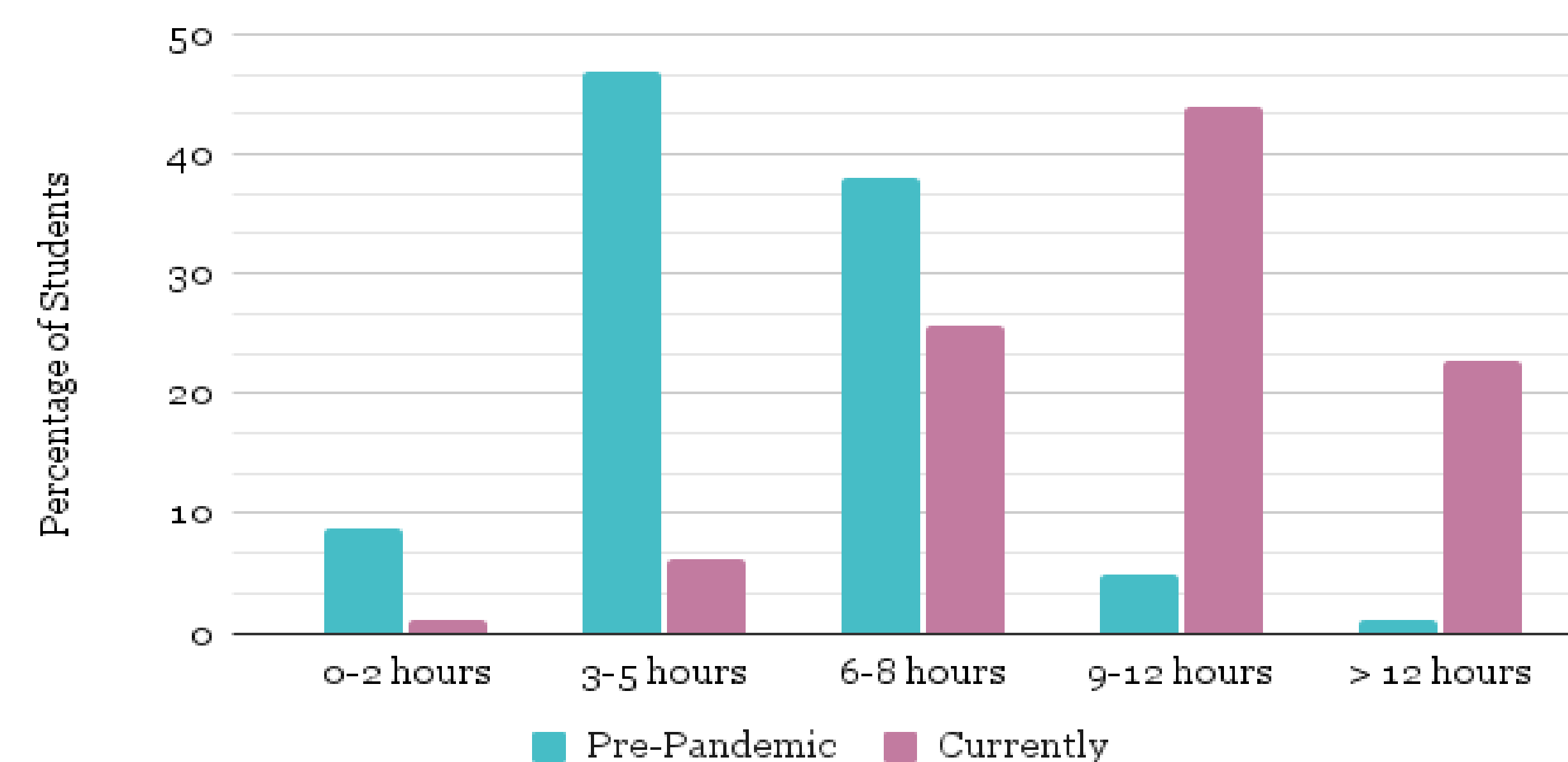


Figure 4: Time Spent on a Blue Light-Emitting Device



The most frequently cited reason for screen time-use was school (98.2%).

Conclusions

Despite no significant association, screen time-use increased among college students since the pandemic.

Quality of sleep has also decreased, including reported quality of sleep measures and longer periods to fall asleep.

Policy Implications

Design lectures to incorporate time to work on assignments in class and engaging in collaborative work to reduce time students spend on electronic devices.

More studies that are more inclusive of all individuals within the education system should be conducted to conclude causation.

Acknowledgements

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References

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