

LSU Health Science Center

LSU Health Digital Scholar

Medical Research Day

2022 Medical Research Day Posters

Oct 13th, 12:00 AM

Perceived Effects of Electronics Use

Alison Schafer

LSU Health Sciences Center- New Orleans

Claire Franklin

cef001@lsuhs.edu

Cody Roi

LSU Health Sciences Center- New Orleans, croi@lsuhsc.edu

Follow this and additional works at: <https://digitalscholar.lsuhs.edu/sommrd>



Part of the [Psychiatry Commons](#)

Recommended Citation

Schafer, Alison; Franklin, Claire; and Roi, Cody, "Perceived Effects of Electronics Use" (2022). *Medical Research Day*. 74.

<https://digitalscholar.lsuhs.edu/sommrd/2022MRD/Posters/74>

This Event is brought to you for free and open access by the School of Medicine at LSU Health Digital Scholar. It has been accepted for inclusion in Medical Research Day by an authorized administrator of LSU Health Digital Scholar. For more information, please contact aolini@lsuhsc.edu.

Introduction

Electronics use has become a prevalent part of everyday life. Electronics may include smartphones, tablets, videogaming devices, television, streaming media, and computers. Electronics use has been associated with both positive and negative effects on wellness. Potential benefits include social support and connection^{1,2}, while negative effects may include depression, obesity, and sleep problems^{3,4,5}. Challenges with studying the wellness impacts of electronics use include: 1) “screen time” encompasses diverse activities, 2) electronic devices may be used for multiple activities concurrently, 3) self-reported use trends may be inaccurate, and 4) different populations may interact with electronic devices in differing and dynamic ways. There is also a lack of research in this area focusing on psychiatric patients. In this cross-sectional study, we survey patients of an outpatient behavioral health clinic ages 13-75 regarding trends in their electronics use and their perceptions of the personal wellness effects of electronics use.

Method

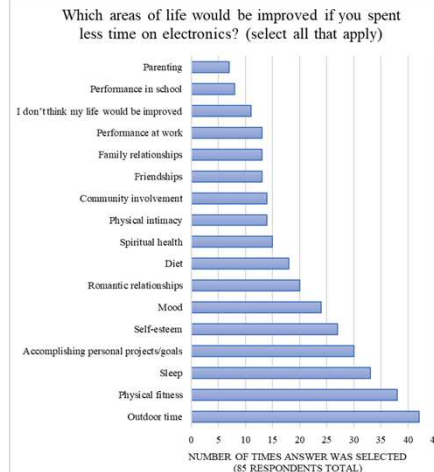
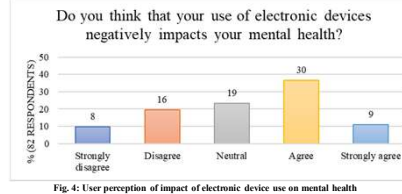
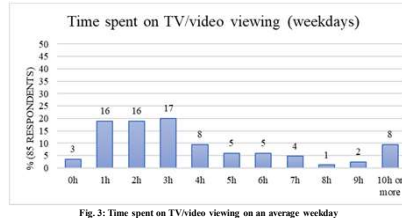
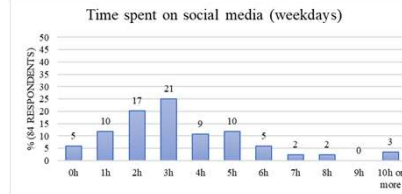
Participants are recruited in the clinic and administered an anonymous, five-minute survey. The survey consists of 30 self-report questions designed by the researchers. Participants provide demographic information and estimate daily time spent on social media, video/TV viewing, and gaming using a multiple-choice scale. The survey also includes questions asking participants how electronics use impacts different aspects of their personal wellness such as relationships, performance at work/school, sleep, and attention. Participants respond using a five-point Likert scale. Responses are analyzed to find average time spent on electronics use and mode for Likert-scale questions.

Demographics

N = 85			
	Mean (Std. dev)	Range	
Age in years	41 (15)	13-75	
Gender	Number	%	
Woman	58	68	
Man	24	28	
Genderqueer	3	4	
Race	Number	%	
White	63	74	
Black or African American	15	18	
Multi-racial	3	4	
Asian	1	1	
Did not reply	3	4	
Ethnicity	Number	%	
Hispanic/Latino/Spanish Origin	5	6	
Not Hispanic/Latino/Spanish Origin	78	92	
Did not reply	2	2	

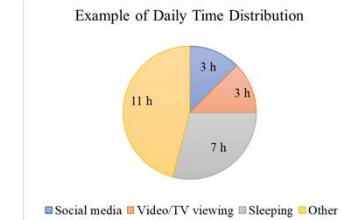
Fig. 1: Participant demographics

Results



Conclusions

The study results indicate that users may spend a significant portion of their day on social media and TV/video viewing. These findings are relevant to mental health because electronics use may consume time that could be spent on activities such as sleep, socialization, and physical activity. Prior research suggests that these alternative activities are key factors influencing personal wellness^{6,7,3}. If an individual spends 3 hours using social media, 3 hours watching TV, and 7 hours sleeping, only 11 hours are available for other activities. The results also indicate that users may view electronic devices as negatively impacting their wellness in some areas of life (e.g., sleep) while supporting their wellness in others (e.g., social connection).



Limitations

Although the setting was an outpatient behavioral health clinic, we did not collect data on participants' health history or mental health diagnoses. Different diagnoses could be associated with different trends in electronics use and perceived wellness effects of electronics use. Also, our survey did not specifically ask about time spent texting and web browsing. Further, there are inherent limitations in using self-report time values. Users may tend to either overreport or underreport time spent using electronic devices^{8,9}.

Areas for future study

Data collection for our study is ongoing. As more responses are collected, differences between demographic groups (e.g., adolescents vs. adults) can be explored. Another question to investigate is whether individuals with high vs. low time spent on electronics view the wellness impacts of electronics differently.

References

- Marciano, L., Ostromova, M., Schulz, P.J., & Camerini, A.-L. (2022). Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis. *Frontiers in Public Health*, 9.
- Zhou, Z., & Cheng, Q. (2022). Relationship between online social support and adolescents' mental health: A systematic review and meta-analysis. *Journal of Adolescence*. <https://doi.org/10.1002/ad.12931>
- Wang, X., Li, Y., & Fan, H. (2019). The associations between screen time-based sedentary behavior and depression: a systematic review and meta-analysis. *BMC Public Health*, 19(1), 1-9. <https://doi.org/10.1186/s12889-019-7904-9>
- Vella, C. A., Taylor, K., & Nelson, M. C. (2020). Associations of leisure screen time with cardiometabolic biomarkers in college-aged adults. *Journal of Behavioral Medicine*, 43(6), 1014-1025. <https://doi.org/10.1007/s10865-020-00161-2>
- Lastella, M., Rigney, G., Browne, M., & Sargent, C. (2020). Electronic device use in bed reduces sleep duration and quality in adults. *Sleep & Biological Rhythms*, 18(2), 121-129. <https://doi.org/10.1007/s4105-019-00251-y>
- Thomé, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults—a prospective cohort study. *BMC Public Health*, 11(66). <https://doi.org/10.1186/1471-2458-11-66>
- Morina, N., Kip, A., Hoppert, T. H., Pribe, S., & Meyer, T. (2021). Potential impact of physical distancing on physical and mental health: a rapid narrative umbrella review of meta-analyses on the link between social connection and health. *BMJ Open*, 11(3), e042335. <https://doi.org/10.1136/bmjopen-2020-042335>
- Scharnow, M. (2016). The Accuracy of Self-Reported Internet Use—A Validation Study Using Client Log Data. *Communication Methods & Measures*, 10(1), 13-27. <https://doi.org/10.1080/19312458.2015.118446>
- Boase, J., & Ling, R. (2013). Measuring Mobile Phone Use: Self-Report Versus Log Data. *Journal of Computer-Mediated Communication*, 18(4), 508-519. <https://doi.org/10.1111/jcc4.12021>