Perceived Effects of Electronics Use

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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.
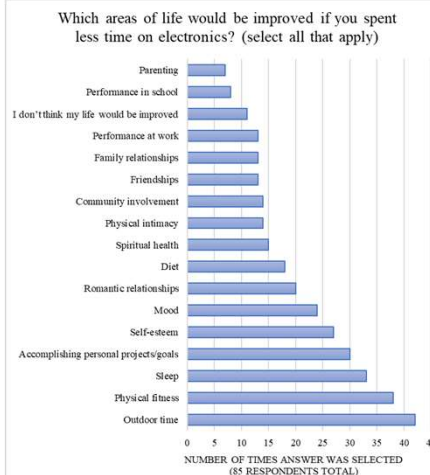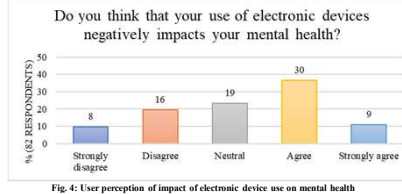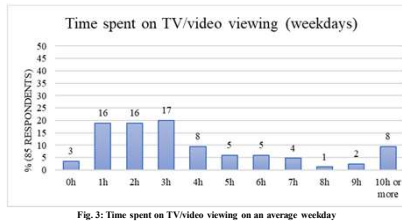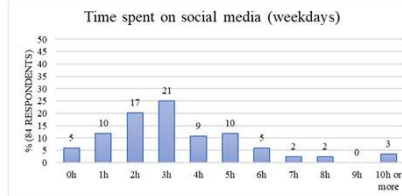
Method

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

Fig. 2: Time spent on social medial on an average weekday

Fig. 3: Time spent on TV/video viewing on an average weekday

Fig. 4: User perception of impact of electronic device use on mental health

Fig. 5: User perception of how life might be improved with reduced electronics time

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).

Fig. 6: Potential daily time distribution
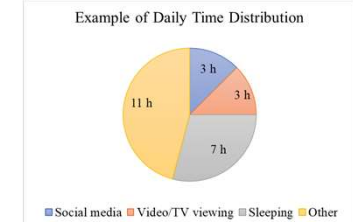
Limitations
Although the setting was an outpatient behavioral health clinic, we did not collect data on participants' health history or mental health diagnoses. Different diagnoses could be associated with different trends in electronics use and perceived wellness effects of electronics use. Also, our 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.

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