The Usage of Mobile Phone User during Covid-19 Pandemic

Chin Jiaying^{1*}, Rajermani Thinakaran¹

¹Faculty of Information Technology, INTI International University, Persiaran Perdana BBN, Putra Nilai, 71800 Nilai, Malaysia

*Email: i18015349@student.newinti.edu.my

Abstract

Along with the outbreak of the COVID-19 pandemic, many people had practiced social distancing by staying in their own homes. As a result, the usage of mobile phones had significantly increased in the attempt to stay socially connected despite the ongoing pandemic. This phenomenon had led to prolonged phone usage to the point where users' health has been affected negatively. The aim of the study is to investigate the over usage of mobile phones during the COVID-19 pandemic and the negative impact caused by it. The research was conducted online through the distribution of questionnaires with mobile phone users as the targeted audience. The survey questionnaire was used as the main data collection methodology tool with a total of 100 respondents. The results of the questionnaire had proven that mobile phone usage had significantly increased during the COVID-19 pandemic with a high number of respondents claim to be suffering from the negative impact of mobile phones due to difficulties in stopping themselves from overusing their phones.

Keywords

Mobile phones, COVID-19 pandemic, Negative impact

Introduction

Ever since the outbreak of the COVID-19 pandemic, the usage of mobile phones has significantly increased to the point where users' health has been affected both physically and mentally (David & Roberts, 2021). This is the result of the problem of the unhealthy lifestyle of users who are spending too much time using their mobile phones simultaneously without break. According to a study, individuals currently prefer their mobile phones to personal computers (PC), which has contributed to an increase in mobile phone usage over time (Adepu & Adler, 2016). As a result, it is not unusual for individuals to use their mobile phones at any time over the course of their everyday lives.

However, along with the global outbreak of the COVID-19 pandemic, many studies had revealed that the mobile usage of users had significantly increased during the times of the pandemic (Dhapola, 2020). Due to the increased usage of mobile phones, many users had begun to suffer from the negative impact of their devices on both their physical and mental health due to

Submission: 14 September 2021; Acceptance: 7 October 2021



prolonged usage of their mobile phones without any breaks in between (Zhan et al., 2021). Therefore, the aim of the study is to investigate the over usage of mobile phones during the COVID-19 pandemic and the negative impact caused by it.

Methodology

The research methodology used for the study is both qualitative quantitative bases(Streefkerk, 2019). The information and data gathered were gathered through a questionnaire that was tailored regarding the topic. Within the distributed questionnaire, the questions asked were simple and relevant to the respondents' daily lives to achieve high accuracy on the current mobile phone trend during the times of the pandemic. The questions designed for the questionnaire are mainly structured in the form of multiple-choice questions, checkboxes, and short answers. Table 1 shows the questions which were asked in the questionnaire for the study. The total respondents for this study consist of 100 people.

Table 1. Questionnaire

Bill.	Question Asked
1	How old are you?
2	Which electronic device you use most frequently?
3	How much time you spend on mobile phones per day?
4	After using your mobile phones for prolonged time (e.g. more than 2 hours), have you ever face these health problems?
5	Do you find it difficult to stop yourself from using your mobile phones/PC for long period of time, e.g. 2 or more hours?
6	How often do you take a break from using your devices?
7	How long does your break last?
8	What kind of activities do you perform when you take breaks from your devices
9	Would you like help in controlling your usage of electronic devices?

Results and Discussion

In Figure 1, the result of the questionnaire showed that most of the responded mobile phones users are mainly made up of adults and teenagers. Since the respondents are mainly adult users, it is more likely to assume that the data gathered are mostly accurate as the respondents are mature enough to understand the questions and provide quality data for the study(Cleave, 2020).

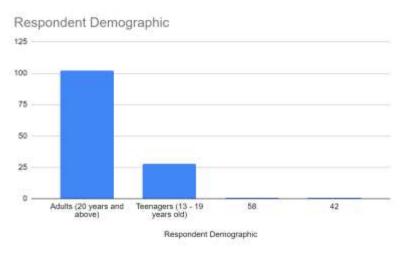


Figure 1. Respondent demographic

In Figure 2, the results had proven that the most frequently used electronic device used during the COVID-19 pandemic are mobile phones. This indicates that people prefer to use mobile phones during the pandemic to stay socially connected with the outside world(Grantz et al., 2020).

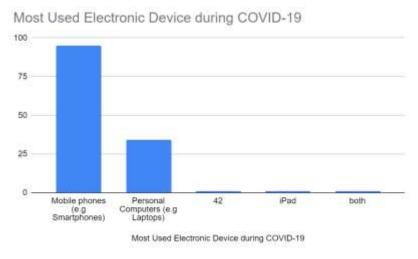


Figure 2. Most used electronic device during COVID-19 pandemic

As shown in figure 3, users are spending an average of 3 to 4 hours on their mobile phones. However, it is also visible that most respondents had claimed to be spending more than 4 hours each day. There is even a relatively percentage of respondents who claim to be spending more than 8 hours on their phones each day. This had clearly proven that users have been overusing their mobile phones for a prolonged time during the COVID-19 pandemic.

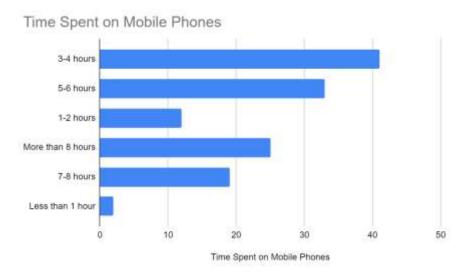


Figure 3. Time spent on mobile phones

The questionnaire had proven that users suffer from the negative impact of mobile phones after prolonged usage. As shown in figure 4, most respondents suffer from eye soreness for continuously staring at the screens of their mobile phones. Many respondents too claimed that they suffered various health problems aside from eye soreness. This issue will become a serious problem if left unattended for a prolonged time.

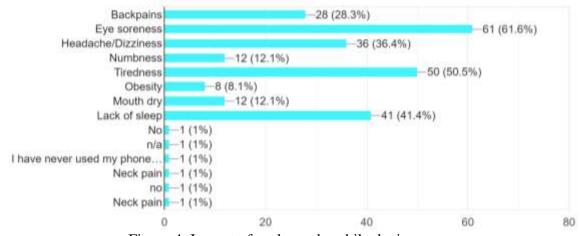


Figure 4. Impact of prolonged mobile devices usage

In figure 5, the result had shown that it was quite debatable on the fact on whether the users needed assistance in stopping themselves from prolonged phone usage. However, most respondents claimed that they find it rather difficult to drive themselves away from their phones. Hence, they are more likely to suffer from the negative health impact of mobile phones due to prolonged usage.

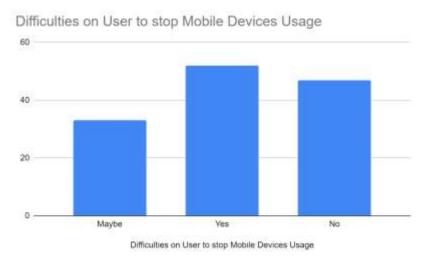


Figure 5. Difficulties on user to stop mobile devices usage

Figure 6 had shown how frequently that user takes a break on their phones. Most respondents had proven to consist of self-discipline qualities with acceptable break intervals between their phone usage time. However, there is a notability number of respondents who claimed to be not taking breaks at all during their phone use. Therefore, it is concluded that despite that most people practiced 'healthy phone usage time', there is also quite a number of users who failed to do so.

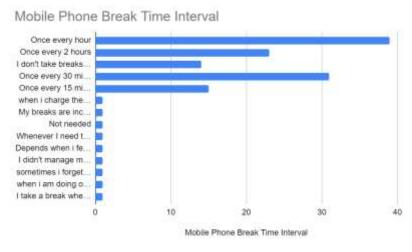


Figure 6. Mobile phone break time interval

Figure 7 shows that the breaks which users take in between their phone use are mainly either 5 to 10 minutes or an average of 30 minutes. It can be assumed that the breaks taken by users are quite satisfactory in terms of their time span. However, it may not be sufficient in comparison with the ratio of the break intervals as shown previously in figure 5. This situation is considered to be debatable, but the pattern on the break duration can be identified.

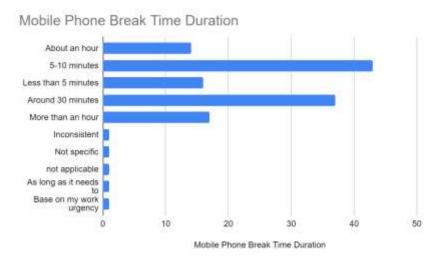


Figure 7. Mobile phone break time duration

In figure 8, the result of the questionnaire had proven that most respondents take care of their personal health by fulfilling their body's needs during their phone breaks. They address their body's needs through activities of resting their body with sleep, relieving themselves on toilet breaks, address to their hunger, thirst, and more. Hence, it was safe to assume that users do not neglect taking care of their personal health during their phone breaks.

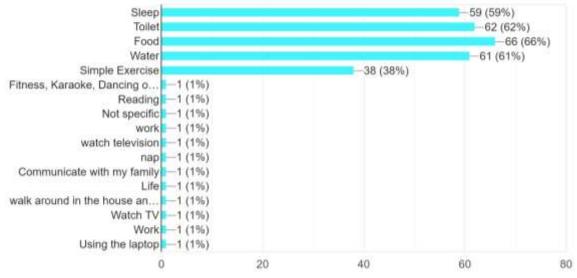


Figure 8. Phone breaks activity preferences

In figure 9, most respondents had claimed that they require assistance in controlling their phone usage. Hence, proving the theory of certain phone users are unable to control themselves in terms of their phone usage.

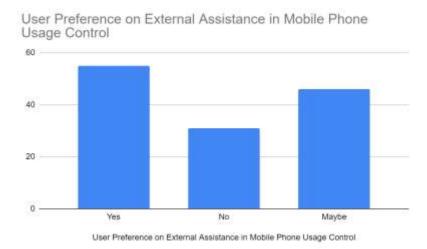


Figure 9. User preference on external assistance in mobile phone usage control

Conclusion

Along with the outbreak of COVID-19, the study had shown that the usage of mobile phones had increased in an attempt to stay socially connected with the outside world. However, the prolonged usage of mobile phones had caused negative health impacts on users. This negative impact could greatly decrease the user's immune system in long-term neglect. This can pose quite a problem especially during times of the pandemic where the immune system plays a major role in fending off the virus (EDITORIAL, 2020).

References

- Adepu, S., & Adler, R. (2016). A comparison of performance and preference on mobile devices vs. desktop computers. Ieeexplore.ieee.org. Retrieved 9 August 2021, from https://ieeexplore.ieee.org/document/7777808.
- Cleave, P. (2020). Why Ask For Survey Respondents' Age? | SmartSurvey. Retrieved 7 August 2021, from https://www.smartsurvey.co.uk/blog/why-ask-for-survey-respondents-age
- David, M., & Roberts, J. (2021). Smartphone Use during the COVID-19 Pandemic: Social Versus Physical Distancing. Retrieved 7 July 2021, from https://www.mdpi.com/1660-4601/18/3/1034/pdf
- Dhapola, S., 2020. Smartphone usage rises dramatically in 2020, users worried about mental health: Vivo study. [online] The Indian Express. Available at:
 https://indianexpress.com/article/technology/tech-news-technology/smartphone-usage-2020-increase-mental-health-worry-vivo-study-7103348/ [Accessed 9 August 2021].
- EDITORIAL. (2020). Why decoding the immune response to COVID matters for vaccines. Retrieved 22 August 2021, from https://www.nature.com/articles/d41586-020-02943-9
- Grantz, K., Meredith, H., Cummings, D., Metcalf, C., Grenfell, B., & Giles, J. et al. (2020). The use of mobile phone data to inform analysis of COVID-19 pandemic epidemiology. Retrieved 7 September 2021, from https://www.nature.com/articles/s41467-020-18190-5

- Streefkerk, R. (2019). Qualitative vs. quantitative research. Retrieved 9 August 2021, from https://www.scribbr.com/methodology/qualitative-quantitative-research/
- Zhan, Z., Wei, Q., & Hong, J. (2021). ScienceDirect. Cellphone addiction during the Covid-19 outbreak: How online social anxiety and cyber danger belief mediate the influence of personality. Retrieved 9 August 2021, from https://www.sciencedirect.com/science/article/abs/pii/S0747563221001138.