



Phone Boost Self-Control or Control You

Wenkang Yu*

Qingdao Wei Ming school, Qingdao, Shandong, 266555, China

Corresponding email: 2769575106@qq.com

ABSTRACT. This article mainly focuses on that mobile phone nearly covers every aspect of people's lives nowadays. Every coin has two sides, although mobile phones bring a variety of advantages to people's lives, they cause a number of challenges that ruin people, especially those people who are lack of self-discipline. In this paper, the research concentrates on the influence of mobile phones on self-control at different age groups that are divided into four categories, namely children, teenagers, people aged from 20 to 40 and 40 to 60. Finally, a conclusion that Children rarely have self-control; teenager has a low resistance to mobile phones. People aged from 20 to 40 are strongly disciplined, not easily affected. People aged from 40 to 60, have little connection with mobile phones. Influence of mobile phones has not been traced on this group.

Keywords: self-control, phone, dopamine

1 Introduction

1.1 Background of the phone

Nowadays, mobile phones are an indispensable part of people's lives, it is one of the most convenient ways for people to use and convenient people's life. For example, people can use phones to connect to different places immediately and communicate with other people face to face. When people feel hungry, they can use their phone to order the things that they like to eat and the takeaway will deliver the food to their physical address. People might meet problems caused by unexpected events, during this period, people can use the designated number to help them escape any potential risk. With the popularity of mobile phones, people communicate with each other conveniently.

1.2 Is cell phone a problem for self-control

As we all know, with the widespread smartphone coverage, our lives have advanced dramatically. However, some scientists argue that one of the biggest concerns with overusing smartphones is whether cell phones make people lose self-control [1,2]. Does the phone boost self-control or control people? In order to figure out this question, I will divide people into different ages group, including children, teenagers, and people

aged from 22 to 55 and senior citizen.

2 Phone's effect for different ages people on self-control

2.1 For children

Children aged 0 to 12, are not fully developed in terms of intellectual capability, so they do not even have a concept of self-control. There will be no life pressure and academic pressure for people in this age group. They will definitely tend to do something that makes them emotionally positive all the time without considering the impact of this consequence on them. Mobile phones are not essential to affect their quality of life. The only temptation of mobile phones to them is to entertain themselves, such as watching cartoons and playing games, and the mobile phone becomes a thing to control them [3]. Take my brother as an example. My brother is 7 years old. They do not have homework after school. He has almost nothing to do after 4 pm. So, he uses his extra time to do some self-study through apps on his mobile phone. Every time he uses his mobile phone, he jumps from study apps to games directly. He can continuously play games for hours if not under the supervision of his parents. Professor Walter Mischel of Stanford University has done a marshmallow experiment to deal with this kind of issue. In these experiments, children can choose to get a marshmallow reward immediately, or choose to wait for a period of time, the experimenter returns to the room (usually 15 minutes) and gets the same two kinds of rewards, and most of the children in this experiment chose to get the reward at the first time, and it was difficult to hold back the mobile phone. Like the marshmallow experiment [4], it is difficult for the children to resist the temptation of the mobile phone. For children, mobile phones control them totally, not that they control the phone.

2.2 For teenager

Teenagers aged 12 to 17 have begun to develop in all aspects, and their learning tasks will become heavier and heavier, and they have learned a lot of new knowledge that they can apply to their daily lives. At the same time, learning is accompanied by a lot of homework that needs to be completed. In school, if students have any questions, they can ask their teachers directly and solve the problem well. However, when they leave school, some problems cannot be solved. Sometimes students are confused without direct tutoring from their teachers. Some people think that parents can help their children with their after-school work, but the fact is that many parents are not so well educated today, because of the fast pace development of society. The level of education is more limited in the past compared to that of today. Only a small number of people went to university and most of them stop their education at the high school level. Therefore, parents' educational levels are not sufficient to provide adequate training to satisfy the academic needs of their children. Over time, their knowledge of the past cannot be applied well in the present. But at this time, the emergence of mobile phones can help them solve many learning problems. For example, when students encounter difficult problems, they can access information through many websites or learning software. To

query certain information, they can use a browser like Google to query the information they need, and the information is quite complete, and the mobile phone can also record a lot of learning content, and students can directly record useful content on their phones. So, the mobile phone can be said to be a good tool to help students solve their learning problems. When teenagers want to relax and take a break, many entertainment functions on mobile phones can also provide positive emotional value to them. For example, teenagers can use social software such as Facebook to send messages to their friends, which can also help them decompress. At the same time, it is accompanied by a question of whether the appearance of mobile phones will make these young people gradually depressed and overindulge themselves in relaxation, and will not be able to achieve their original goals. When teenagers browse materials online, many entertainments software on mobile phones can distract them and make them unable to focus on the learning tasks they want to complete. For example, in the delayed gratification experiment of Michelle and Albertson, delayed gratification is difficult to be achieved for teenagers because most of them do not have very strong willpower, but when the temptation is there, they cannot resist the temptation and postpone the enjoyment at all [5,6]. Experts have also studied the intelligence of middle school students. What is the prevalence of mobile phone addiction? In the research and survey of middle school students who use mobile phones between 12 and 15 years old in South Korea, it is found that more than 30% of the students belong to the risk group of mobile phone addiction [7], which means that there are more than 30 people out of 100 who are addicted to mobile phones. this is a very high rate and people generally think that victims with mobile phone addiction have low self-control, and this 30% teenagers are indulgent with mobile phones. In other words, mobile phones control them rather than they control mobile phones.

In addition, scientists have studied the effects of cell phones on cancer, but the results showed that increased use of cell phones have had a strong association with cancer. Most of the time, there was no direct effect, so there was no explicit link between cell phones and cancer. But it is completely different for brain development. During adolescence, the brain is constantly developing and improving, and one of the most important parts of the brain is the prefrontal cortex. The prefrontal cortex, which has important functions to help people focus, suppress impulses and aid prospective memory, doesn't fully develop until the mid-20s. The prefrontal lobe will be damaged with the increasing frequency of mobile phone use. Even if the nutritional matters are satisfied, the prefrontal lobe will not be fully developed [8]. These damages are irreversible, which makes people lose the function of self-control and have no resistance to outsider lures, such as mobile phones. However, currently in China more than one third of the youngsters between 12 and 18 has kept their attention on Tik Tok (the most famous video clip platform that has more than 600million followers) for more than two hours every day. The length of their usage has caused a lot of problems and hurt their brain constantly. According to middle school teachers, students now are less concentrated in class, and their concentration span is less than 15 minutes, while students could concentrate at least for 45 minutes 10 years ago. This figure has showed that the overwhelming focus of cell phone has already influenced the mental health of this generation negatively.

2.3 For mid-age adult

Adults between the ages of 22 and 55, already have strong self-control, because most of them have received a good education and their ideas and concepts have been matured, and self-control has already formed within themselves. It is difficult to influence them by third parties, and gradually they begin to have more responsibilities and obligations to do a lot of things, they will be exposed to more jobs, and they will assume more social responsibilities, like starting a new family. So, they are not interested in the various entertainments such as online games, eBooks, video clips and so on. They don't have the time and energy to spend on their phones. However, they are forced to use some functions of cell phones, such as online shopping, food order and even chatting apps. This has troubled their lives a lot, those adults have to invest money on purchasing and upgrading electronic devices, cell phones, also time on learning how to use those apps. They have passively accepted the fact that cell phones have to be their companions for the rest of their lives and over time, they have gradually accepted the fact and even some of them also have become phone indulgence. For those people, there are more stresses to face and fewer happy moments in life. Slowly, the trivial things in life will cause them to feel bored and depressed. They may have some psychological problems, such as social interaction. Fewer people will gradually become dependent on mobile phones, because everyone is different, and their anxiety levels will also be different. The reason for studying the pressure and the mood is low, and the mobile phone has become a thing for them to vent [9,10], for example, when people work all day, people will habitually turn on their mobile phones for entertainment, and at this time the dopamine secrets intensively and people will become addicted to the mobile phone, and they will be more likely to fall into the mobile phone and cannot extricate themselves [11], and the goals they want to achieve will fail.

2.4 For senior citizen

Senior citizens are the least affected party by cell phones. They are retired, do not need to work anymore, and they start to enjoy their life every day. The opportunity for them to access mobile phones will be very few. For them, mobile phones are a very new technology and they might refuse to learn how to use this device. The survey shows that the proportion of the elderly using mobile phones is very low, and the functions of their mobile phones are relatively single. Most of the old people just use their mobile phones to call and contact others, that's all [12]. To adapt to the rapid development of the times, they might have to learn how to use mobile phones, because many places in modern times cannot do anything without mobile phones. In terms of the prevention of the new coronavirus in China in 2022, in order to prevent the infection of the virus, it is necessary to check the health code on people's mobile phones in the most densely populated cities in China, otherwise, it will be impossible to get access to public venues and use public transportations. As a result, the elderly is forced to start using mobile phones, so for them, they are not indulgent with their phones. For most elderly people, their relationship with mobile phones is minimal, and there is no such statement that mobile phones affect their self-control. Like many countries in Europe, because the

elderly feels the use of mobile phones is too troublesome, they are not able to learn and master this new skill, so a lot of the elderly people in Europe refused to use pay apps on their mobile phones and they even protested on streets to stop mobile pay apps to safeguard their rights. Thus, businessmen have to stop or reduce the level of e-payment and allow elders to pay by both cash and check. As a result, merchants in Europe have to set up a way to use cash payment, which makes European countries lag behind other countries in terms of mobile payment.

3 Consequence effect

First, the technology advancement has always paid a price. People have spent more and more time on the mobile phones because they have gradually increased the frequency of using their phones to cover almost every aspect of their lives. So, people have accepted the fact that cell phones are something necessary to their lives. And sometimes they even have spent more time unnecessarily to entertain themselves. Some of them, even have been addicted to their cell phones. When they are ready to finish something, they fail to control the time they would have used to finish the task due to poor self-control, such as TikTok, and the fragmented time is not used by mobile phones, such as Tik-Tok. Although it is advertised that each video is short, people can spend only a few minutes to watch a video that they are interested and take a rest from the stressed daily routine. However, this is totally a white lie because TikTok has adopted the same math model from YouTube and the platform acts like someone who can read you thoroughly when you start viewing your first video, you can stop at all. Everything the platform has recommended to you can trigger your interest and make you feel you want to watch one more. So, people end up keeping viewing short videos for hours before they realize that. So, they are addicted to those dopamine producing videos.

Second, the lack of self-control of mobile phones leads to a very large proportion of traffic accidents [13]. According to the survey, the proportion of car accidents caused by mobile phones is very high nowadays. Drivers who use mobile phones while driving cause more than 1.6 million accidents every year. Just because you're not paying attention while you're driving, checking a message, it usually takes your attention away from the car for five seconds, whereas if you're on the highway, the speed is very fast, a major accident can happen within one second and cause uncontrollable consequences. So, a lot of countries have legislations to ban mobile phone usage while driving. If a person is caught, he might lose his driver's license permanently, which has not really lowered the accident rate at all. So, more supervision devices now have been employed to monitor the mobile phone usage on traffic.

Third, mobile phones make the relationship between people become distant. Now among young people, the most common party scene is that a bunch of people gather together and communicate through their cell phones. They do not talk to each other, but text message to people sitting next to them. People will talk directly less and less when they have dinner together, and they will not express what they want to say because they only talk to people on the chatting apps, which sometimes ruins the phenomenon completely. In the past, when there were no mobile phones, families could discuss many

things about themselves at the dinner table and have a lot of communication, but now the Internet has created a lot of new words, network words. Teenagers are very comfortable with the rhythm of this kind of Internet language, but this does not apply to their families, especially their parents. When children talk to their parents using Internet slangs, their parents are confused about what they are really trying to express and sometimes children are bothered to explain. So, the communication stops fully. This is a regression rather than a progress brought by mobile phones.

Forth, physical impact on people [14-17]. In addition to the aforementioned bad effects on the developing brain of people between the ages of 12 and 25, there are also effects on the eyes. Playing mobile phone for a long time will make people suffer from myopia, which is not so high in the past. And also, young people, especially game players have suffered a lot of diseases such as high blood pressure, heart attack, even mental disorder [18].

4 Solution

Although the appearance of mobile phones will affect both minors and adults, these problems can be solved. For children, the problem can be solved through the direct intervention of parents, such as controlling mobile phones; There will be many more methods to control the use of mobile phones for teenagers, such as dispersing learning in different places, such as using notebooks instead of mobile phones when taking notes, and using the internet as much as possible to help them with learning tasks; or when teenagers want to relax, set a rest time, once the time is over, stop straight away. The influence of mobile phones on teenagers will be reduced over time, and their willpower of self-control will also be improved. For adults, the best way for them to take control of their mobile phones is to find a good way to help themselves decompress, such as sports, listening to concerts, and meeting new friends, to get rid of the problem of mobile phones addiction. In other words, for elderly people, it is to adapt to the rhythm of the new era as soon as possible and learn to use mobile phones, because mobile phones have little effect on their self-control.

5 conclusion

In conclusion, those observational studies described above demonstrate that excessive smartphone using is absolutely making people loss their self-control. However, it has a greater or lesser impact on each age group. For example, young children are completely unable to resist the temptation of mobile phones, but the impact on the elderly is basically small, therefore, the impact of mobile phones on people is considered lower and lower as the age increase, and it proof by fact that phone actually can't help the self-control, phone will control people and people find it is hard for them resist the cell phones, which are terrible results. However, there are many ways to solve. Although mobile phones can help people a lot, people also need to realize the bad influence of mobile phones on the overall control. Therefore, during the period of helping your self-

control, you must arrange your mobile phone reasonably, so that it is the best for your own growth.

6 References

1. Jiang, Z., & Zhao, X. (2016). Self-control and problematic mobile phone use in Chinese college students: The mediating role of mobile phone use patterns. *BMC Psychiatry*, 16(1), 1-8.
2. Kim, J., Oh, G., & Siennick, S. E. (2018). Unravelling the effect of cell phone reliance on adolescent self-control. *CHILDREN AND YOUTH SERVICES REVIEW*, 87, 78-85.
3. Schulz van Endert, T. (2021). Addictive use of digital devices in young children: Associations with delay discounting, self-control and academic performance. *PloS one*, 16(6), 1-5.
4. Gianessi, C. A. (2012). From habits to self-regulation: how do we change? *The Yale journal of biology and medicine*, 85(2), 293.
5. Mischel, W., & Ebbsen, E. B. (1970). Attention in delay of gratification. *JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY*, 16(2), 329.
6. Schneider, L., & Lysgaard, S. (1953). The deferred gratification pattern: A preliminary study. *AMERICAN SOCIOLOGICAL REVIEW*, 18(2), 142-149.
7. Cha, S., & Seo, B. (2018). Smartphone use and smartphone addiction in middle school students in Korea: Prevalence, social networking service, and game use. *Health psychology open*, 5(1), 277675290.
8. Carter, A. (2017). The Effect of Cell Phone Use on Frontal Lobe Function (Doctoral dissertation, University Honors College, Middle Tennessee State University).
9. Hou, J., Zhu, Y., & Fang, X. (2021). Mobile phone addiction and depression: Multiple mediating effects of social anxiety and attentional bias to negative emotional information. *Acta Psychologica Sinica*, 53(4), 362.
10. Zhang, Y., Li, S., & Yu, G. (2020). The relationship between loneliness and mobile phone addiction: a meta-analysis. *Advances in Psychological Science*, 28(11), 1836.
11. De La Puente, M. P., Balmori, A., & Garcia, P. (2007). Addiction to cell phones. Are there neurophysiological mechanisms involved. *Proyecto*, 61, 8-12.
12. Navabi, N., Ghaffari, F., & Jannat-Alipoor, Z. (2016). Older adults' attitudes and barriers toward the use of mobile phones. *Clinical interventions in aging*, 11, 1371.
13. Caird, J. K., Johnston, K. A., Willness, C. R., Asbridge, M., & Steel, P. (2014). A meta-analysis of the effects of texting on driving. *Accident Analysis & Prevention*, 71, 311-318.
14. Greenfield, D. Treatment Considerations in Internet and Video Game Addiction: A Qualitative Discussion. *Child Adolesc. Clin. N. Am.* 2018, 27, 327-344.
15. Twenge, J.M. Have Smartphones Destroyed a Generation? *The Atlantic*, September 2017. Available online: <https://www.theatlantic.com/magazine/archive/2017/09/has-the-smartphone-destroyed-a-generation/534198/> (accessed on 3 June 2022).
16. Shaw, M.; Black, D.W. Internet addiction: Definition, assessment, epidemiology and clinical management. *CNS Drugs* 2008, 22, 353-365.
17. Kuss, D.J.; Griffiths, M.D.; Karila, L.; Billieux, J. Internet addiction: A systematic review of epidemiological research for the last decade. *Curr. Pharm. Des.* 2014, 20, 4026-4052.
18. Rumpf, H.; Achab, S.; Billieux, J.; Bowden-Jones, H.; Carragher, N.; Demetrovics, Z.; Higuchi, S.; King, D.; Mann, K.; Potenza, M.; et al. Including gaming disorder in the ICD-11: The need to do so from a clinical and public health perspective. *J. Behav. Addict.* 2018, 7, 556-561.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

