

Mobile Phone Dependency and Relation with other addictive disorders

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Mobile phones have become an essential part of life and have replaced the old wired and fixed telephones. They have become a means of survival nowadays and influenced the minds of people, especially the youth, to such a limit that they might prefer having their telephones with them to the daily essentials. Youngsters are constantly scrolling, texting, calling, playing games, or just loitering around with it. It has become a saviour for introverts nowadays, who can ignore the crowd using their mobile phones. However, we should not restrict ourselves to saying that it has become integral. Instead, it has corrupted people to such an extent that they are struck with bouts of monomania without mobile phones.

With a drastic increase in mobile phones, we see a dramatic change in the reports of mobile enslavement. Some of the studies relate the idea of media addiction to television and the internet. However, there is a very scant study on mobile phone dependency. A legal basis determines the vulnerability towards media use, which includes a “Craving or compulsion, loss of control, and persistence in the behavior despite accruing adverse consequences”¹ It has highly influenced people's minds and has disintegrated the whole human race debasing their minds.

Isolating their users from others is one of these negative outcomes^{2,3}, thus damaging their users' income and converting their users into criminals, thus additionally harming academic accomplishments^{4,5}. According to the reports submitted by renowned psychiatrists, dependence on mobile devices is no different from addiction to any other substance (e.g., the internet, the lethal drug). Using a phone excessively has become one of the most accepted addictions

besides drugs. According to many academics, some users are more dependent on their smartphones than they are aware of the drawbacks like 'addiction'^{6,7} “Addiction to mobile devices”⁸, “Problematic mobile phone use” “Compulsive mobile phone use”, and “mobile phone overuse” all represent the same idea that how a people are preoccupied with their mobile phones that they are ready to ignore everything else just for the sake of a mobile phone. Experts describe this phenomenon through some terms like “Mobile phone addiction” or, to be more precise and accurate; it is defined as “Smartphone addiction”⁹.

With the advent of technology and mobile phones becoming an essential part of life, besides bringing a tremendous change in people's lives, it has also led to psychological mayhem among the youth. Headaches, eyesight issues, earaches, warmth sensations, fatigue and musculoskeletal problems have become common trends. Many researchers have stated that it may cause a tumour, but the actual research is unknown. Mobile phone addiction has reached such a state that people use their mobile phones even while driving and do not care about their lives or the causalities they might cause. Mobile phones have adverse effects on the physical and psychological health of the people. The physical results are visible even at a distance, but psychological effects/impact is hardly visual. Ozturan¹⁰ et al. deduced that since the ear is the firsthand organ coming in contact with mobile devices, it is more susceptible to

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energy deposition than any other organ.

Further studies about the same are still under process and ongoing. Loughran et al. state that the electromagnetic field emitted by mobile phones can cause damage to the human ear and decrease rapid eye movement (REM). Besides, the lack of sleep as a general symptom boosts the electroencephalogram's spectral power in the 11.5 to 12.25 Hz frequency range during the early stages of sleep¹¹

Agrawal¹² et al. studied the harmful radiation from mobile phones, which becomes responsible for male reproductive health. The report states these harmful radiations can degenerate sperm Excellency concerning count, survival, mobility, and structure and may result in a few DNA mutations that unintentionally cause substantial changes in sperm quality.

Also, it was deduced by¹³ (Soderqvist et al., 2008) that excessive use of mobile phones and medical disorders were directly proportional among 2000 Swedish adolescents making them face fatigued, weariness, worry, strain, anxiety, headaches, migraines, attentiveness difficulties and, in somnolence. Frequent users of cellular phones have shown more adverse medical conditions than the ones using the same less frequently. In 2013 ill effects of mobile phones on adolescents' mental and physical health and quality of life were investigated by Tiwari et al.¹⁴. (2020). They randomly selected 100 male students from Uttar Pradesh, India, finding that limited mobile phone users have better mental well-being and quality of life than unlimited ones. Also, the health effects of cell phones by professional course-pursuing students were examined by Acharya et al.¹⁵ (2013). Between the age groups of 17-23 years, college students of both sexes from urban and rural roots were selected haphazardly. It was seen that headache was the most typical symptom of anger/irritability. It was also seen that common symptoms included absentmindedness, mediocre academic performances, sleeplessness, uneasiness and irritability etc. Also, myalgia, asthenopia, and digital fingerprint changes were recorded as common health conditions caused by excessive use of mobile phones. According to WHO (2007 & 2010), physical activity has been considered a long-standing necessity in our day-to-day lives, which can provide us with a wide range of health benefits, such as reduced risk of cardiovascular diseases and specific other hazards, the symptoms of anxiousness,

depression, sleeplessness, and social anxiety. The WHO intensely advises engaging in vigorous or 150 minutes of moderate-intensity physical activity to reduce the risks of chronic diseases. (Lepp et al., 2013)¹⁶, however, have proceeded with a study that MPA may directly or indirectly interfere with college students' physical activity directly or indirectly. Similarly, much of the other published research has also shown an evident reverse connection between physical activity and MPA (G. Yang et al., 2021)¹⁷. Similarly, Barkley proposed that the use of mobile phones has affected and increased sluggish and motionless behavior, which in turn affects strength during physical activity. These two are interdependent, and a slight negligence in any one of the two factors may lead to a critical risk factor that prevents college students from exercising

In an observational study designing,¹⁹ surveyed the fact that there is only one factor in today's life that can control the ill effects of mobile phones: physical exercise. This factor can help in a positive change, but it is wholly and solely self-control dependent. Furthermore, a study revealed that the torpid and sluggish nature is only the result of the overuse of mobile phones. We keep scrolling our mobile phones for the whole day and then complain of low levels of motivation and hence have the slightest interest in physical exercise²⁰.

Based on the earliest studies, there besides some worthy theories have been put forward, but still, they could not meet the right end. Therefore the influential and existential aspects between physical exercise and MPA should be better examined. However, the underlying factors, efficacy, and relations are yet to be adequately explored, which imposes a risk of effect the action in the MPA of college students.

Few studies have revealed that logical and motivational phenomena could lead to a free choice or a specific device type. It has also been found that excessive use of screens, including mobile phones, computers, laptops etc., is affiliated with mental problems, intellect inefficiency, and disability and hence impairment of psychological well-being. Therefore, we should conduct research focusing on the negative repercussions of the overuse of mobile phones rather than on whether it should be considered a behavioral addiction. There are compatible assertions that the overuse of mobile phones and other psychiatric disorders are interrelated. These disorders include depression, anxiety,

Obsessive-compulsive disorder & Attention deficit hyperactivity disorder which are pretty similar to internet addiction, and this overuse could be a precursor to loneliness, strain and other panic attack disorders²¹

Such overuse can cause specific impairments of certain types (Divided and concentrated attention), including altered social cognition, decreased numerical processing speed, diminished working memory and inhibitory control. Moreover, we know that intellect and emotions are interrelated. Hence it is not surprising that a simple and ordinary mind or emotional mechanism for loss of control would be amalgamated with impulsivity and degradation in association with family and friends.

New research shows subdued lateral orbitofrontal grey matter, particularly in online platforms, immoderate use, and prolonged bedtime mobile phone use, are related to altered functional connectivity at the Insula's center. Like gaming disorders, the anterior cingulate also showed reduced grey matter volume²². Overuse of smartphones also reduces brain processes, including emotion and cognitive control. Therefore, raising a grave concern for health & education among children & adolescents. The relationship between increasing screen time and decreased microstructural integrity of the brain white matter tracts, which is associated with language and literary ability development in 5-year-old pre-school children, has been investigated in a novel study²³. Other significant research has found that almost 4277 adolescents have exhibited an undesirable complementary relationship between screen time and thickness of the cortex through FMRI (Functional Magnetic Resonance Imaging), suggesting an early onset of brain ageing²⁴. Definitively, youngsters and media consumption "Multi-taskers" are highly vulnerable to this distortion from outer and foreign environmental impetus and unassociated representation in memory. As a result, they exhibit a lower ability to switch between tasks. The research done so far reveals that the time from childhood to the age of adolescence speedily increased societal phenomena. Therefore, the need to estimate and determine the effects of the media system on intellect development and brain functioning in children, adolescents and young adults has become very important. Overuse of smartphones also results in certain other habit-forming behaviors such as gambling habits, decreased intellect restraint, and impaired

brain activity, which in turn affects the powerful capability and emotional burden-holding capacity.²⁵ These unhealthy habits in adolescents can observe inadequate dynamic control and degraded intellect handling and decreased ability to enjoy the life to its fullest.

REFERENCES

1. Shaffer, H. J., Hall, M. N., & Vander Bilt, J. "Computer addiction": a critical consideration. *The American Journal of Orthopsychiatry*, 2000; 70(2), 162168.
2. Gil-Or, O. Social networks and social isolation - A reason and its solution in one. *PRAGYAA- Journal of Management* 2011; 2, 17.
3. Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox. A social technology that reduces social involvement and psychological well-being? *The American Psychologist*, 53(9), 10171031.
4. Jiang, Q.. Internet addiction among young people in China Internet connectedness, online gaming, and academic performance decrement. *Internet Research*, (2013) 23.
5. Kubey, R., Lavin, M., & Barrows, J.. Internet Use and Collegiate Academic Performance Decrements: Early Findings. *Journal of Communication* 2001' 51, 366382.
6. Goswami, V., & Singh, D. R. Impact of mobile phone addiction on adolescent's life: A literature review. *International Journal of Home Science* 2016;2(1), 6974.
7. Gupta, P., & Nafis, D. (n.d.). *Effect of Mobile Phone usage and Addiction to Young Adult's Life: A Literature Review*.
8. Suleiman Al-Barashdi, H., Bouazza, A., & Jabr, N. H. Smartphone addiction among sultan qaboos university undergraduates. *Journal of Social Science Research*, 2014.; 5(2), 723740.
9. Billieux, J.. Problematic use of the mobile phone: A literature review and a pathways model. *Current Psychiatry Reviews*, 2012;8(4), 299307.
10. Ozturan, O., Erdem, T., Miman, M. C., Kalcioğlu, M.

- T., & Oncel, S. h. Effects of the electromagnetic field of mobile telephones on hearing. *Acta Oto-Laryngologica*, 2002;122(3), 289293.
11. Loughran, S. P., Wood, A. W., Barton, J. M., Croft, R. J., Thompson, B., & Stough, C.. The effect of electromagnetic fields emitted by mobile phones on human sleep. *Neuroreport*, 2005; 16(17), 19731976.
12. Agarwal, A., Deepinder, F., Sharma, R. K., Ranga, G., & Li, J.. Effect of cell phone usage on semen analysis in men attending infertility clinic: an observational study. *Fertility and Sterility*, 2008;89(1), 124128
13. Söderqvist, F., Carlberg, M., & Hardell, L. Use of wireless telephones and self-reported health symptoms: a population-based study among Swedish adolescents aged 1519 years. *Environmental Health*, 2008; 7(1), 110.
14. Tiwari, A., Srivastava, S., & Pant, M. Brain tumor segmentation and classification from magnetic resonance images: Review of selected methods from 2014 to 2019. *Pattern Recognition Letters*, 2020;131, 244260.
15. Acharya, J. P., Acharya, I., & Waghrey, D. A study on some of the common health effects of cell-phones amongst college students. *J Community Med Health Educ*, 2013;3(214), 7112161.
16. Lepp, A., Barkley, J. E., Sanders, G. J., Rebold, M., & Gates, P.. The relationship between cell phone use, physical and sedentary activity, and cardiorespiratory fitness in a sample of U.S. college students. *International Journal of Behavioral Nutrition and Physical Activity*, 2013;10(1), 79.
17. Yang, G., Li, Y., Liu, S., Liu, C., Jia, C., & Wang, S.. Physical activity influences the mobile phone addiction among Chinese undergraduates: The moderating effect of exercise type. *Journal of Behavioral Addictions*, 2021;10(3), 799810.
18. Barkley, J. E., & Lepp, A. Mobile phone use among college students is a sedentary leisure behavior which may interfere with exercise. *Computers in Human Behavior*, 2016;56, 2933.
19. Yang, X., Zhou, Z., Liu, Q., & Fan, C. Mobile phone addiction and adolescents' anxiety and depression: The moderating role of mindfulness. *Journal of Child and Family Studies*, 2019;28(3), 822830.
20. Zagała, K., & Strzelecki, A. eSports evolution in football game series. *Physical Culture and Sport. Studies and Research*, 2019; 1(83), 5466.
21. Harris, B., Regan, T., Schueler, J., & Fields, S. A.. Problematic Mobile Phone and Smartphone Use Scales: A Systematic Review. *Frontiers in Psychology*, 2020; 11, 672.
22. Lee, D., Namkoong, K., Lee, J., Lee, B. O., & Jung, Y.-C. Lateral orbitofrontal gray matter abnormalities in subjects with problematic smartphone use. *Journal of Behavioral Addictions* 2019;8(3), 404411.
23. Wilmer, H. H., Sherman, L. E., & Chein, J. M.. Smartphones and Cognition: A Review of Research Exploring the Links between Mobile Technology Habits and Cognitive Functioning. *Frontiers in Psychology*, 2017;8, 605.
24. Paulus, M. P., Squeglia, L. M., Bagot, K., Jacobus, J., Kuplicki, R., Breslin, F. J., Bodurka, J., Morris, A. S., Thompson, W. K., Bartsch, H., & Tapert, S. F.. Screen media activity and brain structure in youth: Evidence for diverse structural correlation networks from the ABCD study. *NeuroImage*, 2019;185, 140153.
25. Wacks, Y., & Weinstein, A. M.. Excessive Smartphone Use Is Associated With Health Problems in Adolescents and Young Adults. *Frontiers in Psychiatry*, 2021;12, 669042.