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Digital Wellness - Essential for Children

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Introduction

The digital revolution is evolving at an overwhelming pace and there is explosion of digital technology facilities in this modern world. The recent advances in technology in the fields of communication, education and health are indeed amazing. Digital wellness incorporates all aspects of a person's well being with regard to information technology. This includes propensity to search for information online, intensity of use of devices, response to device notifications, patterns of multitasking, posture, screen time and the behaviour during use of devices.

A person's digital wellness signifies how safely and healthily, that individual relate to digital technology. Digital wellness involves the measures aimed at regulating the scientific use of technology, in order to maintain good physical and emotional health in the digital world. It also involves working responsibly in digital environments, as well as maintaining a balance between offline and online life of the individual. Cyber-psychological approach is needed to the use of technology in healthcare [1]. Use of wellness technologies positively influence wellness motivation and help people to learn more about their own digital-wellness related behaviour [2].

Effects of Excessive and Improper Digital Technology Use on Children and Adolescents

High levels of screen time is associated with several adverse health outcomes [3]. Majority of preschool children exceed screen-time recommendations and only a few preschool children meet the daily physical activity recommendations [4]. Inadequate physical activity along with increased amounts of sedentary screen time can lead to excess weight gain in young children [5]. Excess sedentary screen time is also associated with obesity in school-age children and adolescents [6]. Increased screen time can also lead to cardio-metabolic abnormalities in children [7].

Increased use of electronic media is also a risk factor for emotional problems in school-aged children [8]. In the current digital world, with increased reliance on digital devices,

smartphone addiction of children and adolescents has become a pressing concern [9,10]. Children and adolescents also experience cyberbullying and cyber-aggression [11]. Cyberbullying is a serious public health problem which affects 20% to 40% of children and adolescents [12].

Extended usage of electronic devices can contribute to physical problems such as headache, neck, shoulder and back pain, as well as eye strain in children [13]. Studies have shown that higher smartphone and technology use also leads to sleeping difficulties [14,15,16]. Television viewing and video game playing are associated with deterioration in academic performance of children and adolescents [17].

Elements of Digital Wellness

There are physiological, behavioural and emotional elements of digital wellness. These include proper management of screen time and technostress. Preventing problematic use of internet, promoting healthy lifestyle behaviours, teaching cyber-security, giving scientific guidance related to media multi-tasking, maintaining online privacy as well as preventing online disinhibition and addictions are very important elements of digital wellness.

Digital Citizenship

Digital citizenship refers to the effective use of technology by any person who uses computers, internet and the digital devices. It includes appropriate online etiquette, good literacy in how digital technologies work and understanding of ethics and laws related to the use of digital devices. Good digital citizens are the individuals using information technology and the internet regularly and not misusing them to disadvantage others. They have the knowledge and skills to effectively use digital technologies and they know how to stay safe online.

Digital citizenship is essential for schools, where technology integration is an important learning strategy for equipping students to live in 21st century. Applying digital citizenship will lead to the development of well-behaved, technology-savvy students [18]. While incorporating technology integration into educational settings, cyber-safety and cyber-wellness practices must be addressed properly [19].

Students should be empowered to become good digital citizens. Parents, teachers and experts in child guidance, have important role in this aspect. We can improve the digital wellness of children through scientific guidance. Children should be given the knowledge regarding the consequences of increased screen time and they should be encouraged to build healthy habits for physical and emotional well-being.

It is necessary that children should be provided with the knowledge and skills to be ethical and critical during online activities [20]. Digital wellness includes making correct decisions in many areas of digital life and not just an effort to reduce screen time. Hence guidance should be provided to students regarding online safety and security as well as how to manage information and communication overload. We can hope that in future, all technologies will be better designed to improve the emotional well-being of individuals [21].

Conclusion

In the current digital age, digitalization is everywhere and it is affecting the everyday life of children enormously. The technologies that have transformed the daily lives of children of the current era, also present some serious risk factors in the life of kids. The digital lifestyle of a child will affect the physical health, academic performance and emotional well-being.

Hence digital wellness is essential for children. Students should be taught how to use digital technologies efficiently, both in class and at home. By acquiring digital wellness, children can develop healthy relationship with technology that will serve them in positive way for a lifetime.

References

1. C. McMahon and M. Aiken, "Introducing Digital Wellness: Bringing Cyber-psychological Balance to Healthcare and Information Technology," 2015 IEEE International Conference on Computer and Information Technology; Ubiquitous Computing and Communications; Dependable, Autonomic and Secure Computing; Pervasive Intelligence and Computing, Liverpool, 2015, pp. 1417-1422.
2. Kari, T., Kettunen, E., Moilanen, P., & Frank, L. (2017). Wellness Technology Use in Everyday Life: A Diary Study. In A. Pucihar, M. K. Borstnar, C. Kittl, P. Ravesteijn, R. Clarke, & R. Bons (Eds.), *Bled 2017 : Proceedings of the 30th Bled eConference. Digital Transformation : From Connecting Things to Transforming Our Lives* (pp. 279-293). Maribor: University of Maribor Press.
3. Latomme J, Van Stappen V, Cardon G, et al. The Association between Children's and Parents' Co-TV Viewing and Their Total Screen Time in Six European Countries: Cross-Sectional Data from the Feel4diabetes-Study. *Int J Environ Res Public Health*. 2018;15(11):2599. Published 2018 Nov 21. doi:10.3390/ijerph15112599
4. Staiano AE, Webster EK, Allen AT, Jarrell AR, Martin CK. Screen-Time Policies and Practices in Early Care and Education Centers in Relationship to Child Physical Activity. *Child Obes*. 2018;14(6):341-348.
5. Jago R, Baranowski T, Baranowski JC, Thompson D, Greaves KA. BMI from 3-6 yr of age is predicted by TV viewing and physical activity, not diet. *Int J Obes (Lond)*. 2005 Jun;29(6):557-64.
6. Maher C., Olds T.S., Eisenmann J.C., Dollman J. Screen time is more strongly associated than physical activity with overweight and obesity in 9-to 16-year-old Australians. *Acta Paediatr*. 2012;101:1170-1174.
7. Ekelund U., Brage S., Froberg K., Harro M., Anderssen S.A., Sardinha L.B., Riddoch C., Andersen L.B. TV viewing and physical activity are independently associated with metabolic risk in children: The European Youth Heart Study. *PLoS Med*. 2006;3:e488.
8. Page A.S., Cooper A.R., Griew P., Jago R. Children's screen viewing is related to psychological difficulties irrespective of physical activity. *Pediatrics*. 2010;157:1154.
9. Tangmunkongvorakul A, Musumari PM, Tsubohara Y, et al. Factors associated with smartphone addiction: A comparative study between Japanese and Thai high school students. *PLoS One*. 2020;15(9):e0238459. Published 2020 Sep 8.
10. Ihm J. Social implications of children's smartphone addiction: The role of support networks and social engagement. *J Behav Addict*. 2018 Jun 1;7(2):473-481.
11. Ranney ML, Pittman SK, Riese A, Koehler C, Ybarra ML, Cunningham RM, Spirito A, Rosen RK. What Counts?: A Qualitative Study of Adolescents' Lived Experience With

Online Victimization and Cyberbullying. *Acad Pediatr.* 2020 May-Jun;20(4):485-492.

12. Aboujaoude E, Savage MW, Starcevic V, Salame WO. Cyberbullying: Review of an Old Problem Gone Viral. *J Adolesc Health.* 2015 Jul;57(1):10-8.

13. Ting SL, Saimon R, Rahman MM, Safii R, Ho SL, John N, Lim LT, Arsad N. Factors predicting screen time related to physical and behavioural complaints in primary school children. *Med J Malaysia.* 2020 Nov;75(6):649-654.

14. Hale, L., & Guan, S. (2015). Screen time and sleep among school-aged children and adolescents: A systematic literature review. *Sleep Medicine Reviews*, 21, 50-58.

15. Ghekiere A, Van Cauwenberg J, Vandendriessche A, Inchley J, Gaspar de Matos M, Borraccino A, Gobina I, Tynjala J, Deforche B, De Clercq B. Trends in sleeping difficulties among European adolescents: Are these associated with physical inactivity and excessive screen time? *Int J Public Health.*

16. Jakobsson M, Josefsson K, Hogberg K. Reasons for sleeping difficulties as perceived by adolescents: a content analysis. *Scand J Caring Sci.* 2020 Jun;34(2):464-473.

17. Adelantado-Renau M, Moliner-Urdiales D, Cavero-Redondo I, Beltran-Valls MR, Martinez-Vizcaino V, Alvarez-Bueno C. Association Between Screen Media Use and Academic Performance Among Children and Adolescents: A Systematic Review and Meta-analysis. *JAMA Pediatr.* 2019;173(11):1058-1067.

18. Ribble, Mike S.; Bailey, Gerald D.; Ross, Tweed W. Digital Citizenship: Addressing Appropriate Technology Behavior. *Learning & Leading with Technology*, v32 n1 p6-9, 11 Sep 2004

19. Searson, M., Hancock, M., Soheil, N. et al. Digital citizenship within global contexts. *Educ Inf Technol* 20, 729-741 (2015).

20. Bjorn Nansen, Kabita Chakraborty, Lisa Gibbs, Colin MacDougall & Frank Vetere. Children and Digital Wellbeing in Australia: Online regulation, conduct and competence, *J Child Media.* 2012. 6:2, 237-254, DOI: 10.1080/17482798.2011.619548.

21. Dorian Peters, Rafael A. Calvo¹, Richard M. Ryan. Designing for Motivation, Engagement and Wellbeing in Digital Experience. *Front. Psychol.*, 28 May 2018 | <https://doi.org/10.3389/fpsyg.2018.00797>