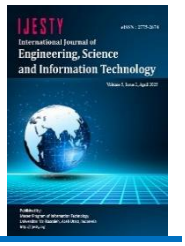
International Journal of Engineering, Science and Information Technology
Volume 5 No. 2 (2025) pp. 553-556
ISSN 2775-2674 (online)
Website: http://ijesty.org/index.php/ijesty
DOI: https://doi.org/10.52088/ijesty.v5i2.1493
Research Paper, Short Communication, Review, Technical Paper



Digital Detox and Mindfulness: Psychological Effects of Reducing Mobile App Usage Among University Students

Zebo Norquziyeva[1*], Zebo Davlatova[2], Umid Kholnazarov[3], Unarbek Edilboyev[4], Zilola Sattorova[5], Kamola Xamrakulova[6], Nodira Nurullayeva[7], Dilfuza Shabbazova[8]

[1]Gulistan State University, Uzbekistan
[2]Navoi State University, Uzbekistan
[3]Termez State University, Uzbekistan
[4]Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, National Research University, Uzbekistan
[5]Tashkent State University of Oriental Studies, Uzbekistan
[6]Gulistan State University, Uzbekistan
[7]Department of History, Mamun University, Khiva, Uzbekistan
[8]Termez State Pedagogical Institute, Uzbekistan

**Corresponding author Email: norkuziyevaz@mail.ru*

The manuscript was received on 21 November 2024, revised on 1 January 2025, and accepted on 1 April 2025, date of publication 22 May 2025

Abstract

In the contemporary digital era, college students are among the most frequent users of mobile applications and social media systems, raising substantial worries around addiction to technology. Although online resources provide many benefits, their improper usage and excessive reliance present significant risks. This research examines the impacts of a one-day Digital Detox (DD) program on undergraduates in Uzbekistan, concentrating on the consequences of refraining from smartphone use. The detox camp, modeled after similar programs, sought to assess the effects of a total DD. The research used qualitative approaches, conducting comprehensive conversations with respondents to evaluate improvements in self-awareness, connections with others, and general well-being. The results showed that people were more aware of themselves, had better connections, and felt much more relaxed. There were problems like Nomophobia (the fear of being without a mobile device) and FOMO (the fear of missing out).The findings demonstrate that DD programs significantly reduce digital reliance and promote conscious technology use among students. This study improves what we already know about the benefits of DD approaches and points out areas that need further research and application.

Keywords: *Digital Detox, Mindfulness, Psychology, Mobile App, Students.*

1. Introduction

Social media is a big part of everyday life in the digital age[2]. It alters interpersonal communication, education, and recreation [1]. People are worried about Mental Health (MH) because it is so common. MH includes worry, anxiety, and less attention. "Digital Detox" (DD), which means staying away from electronic devices and systems on purpose, has been suggested as a good way to solve these problems.

In today's digital world, social networking is a big part of everyday life that changes how people connect, learn, and have fun [9].In Uzbekistan, too much use of mobile apps and social media has been linked to harmful effects on mental health. This is even though these things have a lot of good things about them, like bringing people from all over the world together and giving them places to express themselves. This means you will have more stress, worry, and unhappiness, and less emotional intensity. Because people are getting more worried, "DD" is being looked at as a possible answer. A digital detox (DD) is a short, planned break from digital devices that is meant to help your mental health and lower the harmful effects of too much screen time [3].

Mental health (MH) comprises a person's cognitive, physical, and social health. Being on social media all the time can make you feel overwhelmed with information, anxious because you compare yourself to others, and less connected to people in real life, all of which are bad for your mental health. People who are addicted to social media can't stop using it even when they want to, which makes these problems worse [13]. People are stressed out by the constant stream of texts and updates, which makes it harder for them to be present and for their minds to bounce back. Psychological resilience, or adapting and recovering from stress or difficult times, is essential for maintaining mental health [10]. Research indicates that excessive social media usage diminishes resilience by fostering dependency, impairing coping mechanisms, and increasing susceptibility to external validation.

Copyright © Authors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

DD is a good way to lessen the harmful effects of using too many mobile apps [5]. When people take a break from digital platforms, they break the cycle of dependence, lower their stress levels, and make time for reflection and mindfulness [4]. A DD gets people together in person, helps them stay on task, and gets them back into offline activities that are good for their mental health.

DD is a way to deal with the problems of using too much technology in a world where social media sites are everywhere. This study shows how much DD affects MH and how it helps improve MH. Taking a break from digital platforms can help people feel less stressed, better mentally, and have stronger relationships [6]. This allows them to balance their real life and their online life [11]. It is hard to go through detox and deal with withdrawal symptoms, but the long-term benefits make it a good way to improve mental health [12]. As people deal with the effects of spending too much time online, like DD for social, professional, and personal health reasons, promoting health and happiness in the digital age will be essential. This study aims to investigate how digital distractions affect emotional well-being, especially how they can improve mental health in people who spend a lot of time in online groups [8].

2. Literature Review

In the digital era, psychological practitioners discern contemporary trends and fundamental disorders etiologist, enhancing their ability to deliver appropriate treatments. Research in this domain indicates that extensive mobile application use correlates with heightened anxiety and sadness in Uzbekistan [15]. A meta-analysis of research on teenagers and mobile applications revealed a significant link between extensive consumption and poor MH [7].This underscores the need for measures such as DD to alleviate these consequences. The study highlighted that resilience-building initiatives must include the digital landscape. The research determined that minimizing electronic distractions enables people to concentrate on coping strategies and improve resilience.

The study investigated the effects of a five-day DD on stress alleviation and MH. Participants indicated lower levels of cortisol, indicating less stress [14]. Research suggests frequent social media use disturbs sleep cycles, thus impacting psychological well-being. A DD might mitigate such disturbances by enhancing sleep hygiene. Additionally, the study examined the increasing prevalence of DD as a lifestyle trend. Their research shows that deliberate disengagement enables people to regain ownership of their lives and MH. The study presented awareness as a mental concept that promotes well-being. Their results correspond with DD techniques that advocate for conscious involvement in everyday living. The study characterized social media addictions as an escalating psychological issue, having detrimental impacts on MH; aDD functions as a prophylactic measure.

The study examined the "digital weariness" phenomenon caused by prolonged online involvement, advocating for a DD to regain emotional equilibrium. The study indicated that students engaging in a DD had heightened academic concentration and less delay, resulting in improved grades. Research suggests that regular social media use promotes detrimental comparisons of oneself, resulting in diminished self-esteem and overall well-being. A DD disrupts this loop. The investigation examined the effects of excessive surfing in the workplace, demonstrating that DD enhances concentration and mitigates employee burnout. The research emphasized DD as a practical self-care approach for alleviating anxiety and tension. Their research advocates for the use of DD in wellness initiatives. This research examined the neurobiological impact of social media, highlighting that detoxification periods recalibrate glutamate circuits disrupted by heavy use. Research indicates effective DD solutions often depend on robust support structures, including close companions, family, and job adjustments.

3. Methods

This study offered an in-depth insight into the impact of DD on emotional health and resilience to stress. The research used a combination of methods. The quantitative elements included an in-depth questionnaire of 250 individuals participating in a two-week DD programme. The questionnaire assessed changes in psychological health using the standardized Warwick-Edinburgh Mental Well-being Scale (WEMWBS) before and during the treatment. The qualitative element encompassed deep conversations with 30 individuals to examine their feelings throughout the detoxification phase, emphasizing their mental and emotional reactions. A cohort of 150 individuals functioned as a control group for the DD class. In the control category, individuals maintained their standard digital involvement without a single adjustment. The information acquired before and after the test was compared with a control group of students. This phase included analysing individuals who engaged in DD and those who continued their usual digital activities throughout the same timeframe. Fig. 1 displays the statistical data of the assessed variables for both the exploratory and control sections.

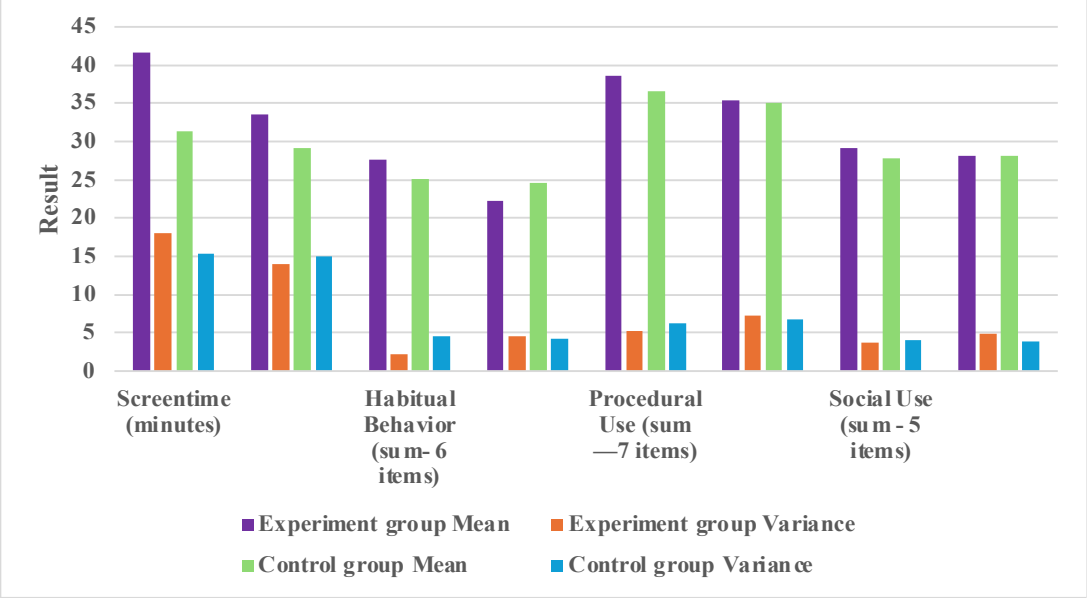


Fig 1. Student Mobile App Usage Analysis

3.1. Quantitative Evaluation

The quantitative aspect of this research was examining MH assessment using questionnaires before and during a two-week DD scheme, examining these results with those of the control population.
Results Before Treatment: Preliminary research indicated that both groups had similar baseline values for MH. The DD sample achieved a mean rating of 44.5 (SD = 7.2), while the control group scored 42.6 (SD = 6.2).The findings validated the groups' equality at the study's inception ($p > 0.02$), guaranteeing that any rating alterations after the treatment could be ascribed to the DD instead of pre-existing disparities.
Outcomes Following Intervention: Following the two-week DD, the participants demonstrated an essential boost in their psychological state, achieving an average post-intervention rating of 52.6 (SD = 6.2), representing a 24.1% rise ($p < 0.002$).Conversely, the control groups exhibited no significant modifications in their ratings, achieving an after-treatment mean of 44.2 (SD = 7.1).These data validate the efficacy of detox interventions in promoting psychological well-being.
Measures of Resilience: Subscale assessment of the WEMWBS indicated that individuals in the detox group had significant gains in control of emotions and stress. For example, 65% of participants stated they felt calmer and more emotionally stable following detoxification. This suggested that they were better able to handle stress in their everyday lives.
Variations in Age and Gender: Subgroup studies revealed that younger persons had more significant improvements in well-being than those over thirty. There were few differences between men and women, since both groups received similar advantages from the intervention.

3.2. Qualitative Evaluation

We also received qualitative data from talking to 30 individuals in the detox group for a long time, in addition to the figures. Thematic analysis of the talks yielded significant insights into respondents' mental and psychological states throughout the detoxification process.
Theme 1: More detailed information on feelings: Many people stated they could concentrate better since they weren't using technology, which allowed them to connect with their emotions more fully. One individual who replied remarked, "I was able to fully process my emotions for the first time in years without constant announcements. "This research demonstrates that DD is an excellent technique to help individuals become more conscious and think about their emotions.
Theme 2: More Focus and Productivity: Many participants said they could focus better on their professional and personal pursuits. One of the students who replied claimed, "I could study during the detox even though I kept looking at my phone. "I've finished twice as much. Employees also indicated they could do their job faster since they didn't have to look at screens as much and weren't as often interrupted.
Theme 3: Early Signs of Withdrawal: The first few days of detox were rough for most individuals. Some individuals felt symptoms that were similar to withdrawal, such as anxiety, restlessness, trouble sleeping, and an insatiable urge to check their gadgets. Someone stated, "It was unexpectedly hard, like I didn't have a routine part. "These feelings had disappeared by the fourth or fifth day, and I felt peaceful and clear-headed.
Theme 4: Getting along better with other people: During the detox phase, people spent more time with their close friends in person, which helped them get to know one another better. A respondent said, "Rather than perusing social media, I dedicated the evenings to conversing with my grandparents, which proved quite fulfilling. "This indicates that diminishing digital participation enhances interpersonal interactions and relationship quality.
Theme 5: Contemplation on Digital Practices: Respondents expressed a heightened awareness of their reliance on digital technology. Numerous individuals expressed astonishment about the extensive time they had devoted to the internet, with one volunteer remarking, "I was unaware of how much of my entire day was occupied by scrolling until I ceased. "It was enlightening.

4. Results and Discussion

Cognitive Wellness Current Developments: The detox group significantly increased well-being ratings, while the control sample's values remained relatively unchanged. These results aligned with qualitative results. Discussions with respondents in the control group indicated that several individuals had exhaustion and weariness due to their ongoing digital involvement. A respondent in the control group said, "Engaging with mobile applications was draining, yet I was unable to cease—it's akin to a relentless cycle."
Qualitative Comparisons: Contrary to the detox group, individuals in the control sample experienced no significant enhancements in attention or mental clarity. Conversely, some individuals articulated sensations of "digital tiredness" and characterized their use of mobile applications as a source for anxiety rather than solace.
Comprehensive Conclusions: The mixed-methods investigation revealed that DD significantly enhanced MH and resilience to trauma. Quantitative enhancements in WEMWBS ratings suggest an apparent boost in psychological condition. However, qualitative elements such as mental clarity, heightened productivity, and fortified connections offer a more profound insight into the detox process.
The studies emphasize that DD presents problems, especially during the beginning phases, when feelings of withdrawal create obstacles. Enduring advantages surpass these immediate obstacles, such as decreased stress, enhanced concentration, and increased psychological awareness.

5. Conclusion

The research shows that a one-day DD could significantly improve university students' self-awareness, interpersonal interactions, and general well-being. Respondents experienced enhanced self-awareness, greater social connections, and calmness. The existence of Nomophobia and FOMO Phobia in some pupils indicates the deep-rooted nature of smartphone dependence. The results suggest that DD camps serve as a successful approach to alleviating digital dependency and fostering mindful use of technology.

References

[1] Kolhar, M., Kazi, R. N. A., & Alameen, A. (2021). Effect of social media use on learning, social interactions, and sleep duration among university students. *Saudi journal of biological sciences, 28*(4), 2216-2222.

[2] Sridhar, A. P. (2025). Analyzing Social Engineering Attack Patterns Using Behavioral Psychology and AI-Driven Defense Mechanisms. *Journal of Internet Services and Information Security, 15*(1), 502-519.

[3] Raj, G., Sharma, A. K., & Arora, Y. (2024). Analyzing the Effect of Digital Technology on Mental Health. *In Strategies for E-Commerce Data Security: Cloud, Blockchain, AI, and Machine Learning* (pp. 54-82). IGI Global.

[4] Yunuskhodjaeva, K., Almatova, U., Karimov, N., Khaydarova, S., Jalolova, S., Bahodir, A., &Toshmatov, I. (2025). The Role of Digital Technology in Archiving Ethno-Touristic Landmarks. *Archives for Technical Sciences, 1*(32), 15–22. https://doi.org/10.70102/afts.2025.1732.015

[5] Cemiloglu, D., Almourad, M. B., McAlaney, J., & Ali, R. (2022). Combatting digital addiction: Current approaches and future directions. *Technology in Society, 68,* 101832.

[6] Hasan, M. S. (2024). The Application of Next-generation Sequencing in Pharmacogenomics Research. *Clinical Journal for Medicine, Health and Pharmacy, 2*(1), 9-18.

[7] James, A., Thomas, W., & Samuel, B. (2025). IoT-enabled smart healthcare systems: Improvements to remote patient monitoring and diagnostics. Journal of Wireless Sensor Networks and IoT, 2(2), 11-19.

[8] Alsunni, A. A., & Latif, R. (2021). Higher emotional investment in social media is related to anxiety and depression in university students. *Journal of Taibah University Medical Sciences, 16*(2), 247-252.

[9] Singh, N., & Kumar, A. (2024). Gamification in Medical Terminology Learning: A Comparative Study of Digital Education Tools. *Global Journal of Medical Terminology Research and Informatics, 2*(1), 4-7

[10] Troussas, C., Krouska, A., &Sgouropoulou, C. (2021). Impact of social networking for advancing learners' knowledge in E-learning environments. *Education and Information Technologies, 26,* 4285-4305.

[11] Vignesh, S., Prasanth, N., Vasanth, P., & Sathish kumar, T. (2023). Authentication by Graphical Password Using Digital Signature Algorithms. *International Journal of Advances in Engineering and Emerging Technology, 14*(1), 130–132

[12] Singh, P., Bala, H., Dey, B. L., &Filieri, R. (2022). Enforced remote working: The impact of digital platform-induced stress and remote working experience on technology exhaustion and subjective well-being. *Journal of Business Research, 151,* 269-286.

[13] Sharma, D., Sharma, A., & Agarwal, G. (2018). Review Paper on Digital Steganography in Android Application. *International Academic Journal of Innovative Research, 5*(1), 9–16. https://doi.org/10.9756/IAJIR/V5I1/1810002

[14] Throuvala, M. A., Griffiths, M. D., Rennoldson, M., & Kuss, D. J. (2021). Perceived challenges and online harms from social media use on a severity continuum: a qualitative psychological stakeholder perspective. *International journal of environmental research and public health, 18*(6), 3227.

[15] Uvarajan, K. P. (2024). Advances in quantum computing: Implications for engineering and science. Innovative Reviews in Engineering and Science, 1(1), 21-24. https://doi.org/10.31838/INES/01.01.05

[16] Giglberger, M., Peter, H. L., Kraus, E., Kreuzpointner, L., Zänkert, S., Henze, G. I., ... & Wüst, S. (2022). Daily life stress and the cortisol awakening response over a 13-month stress period–Findings from the LawSTRESS project: psychoneuroendocrinology, 141, 105771.

[17] Karimov, N., et al. (2024). Impact of mobile applications on tourism development in Uzbekistan. Indian Journal of Information Sources and Services, 14(4), 175–181.

[18] Abdullah, D. (2025). Environmental sound classification using CNNs with frequency-attentive acoustic modeling. National Journal of Speech and Audio Processing, 1(1), 8–14.

[19] Y. Chu, E. Kepros, B. Avireni, S. K. Ghosh and P. Chahal, "RF Energy Harvesting Hybrid RFID Based Sensors for Smart Agriculture Applications," *2024 IEEE 74th Electronic Components and Technology Conference (ECTC)*, Denver, CO, USA, 2024, pp. 2267-2271, doi: 10.1109/ECTC51529.2024.00385.