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# PROBING THE RELATIONSHIP BETWEEN DIGITAL DETOXIFICATION AND PSYCHOLOGICAL BURDEN: AN EDUCATIONAL PERSPECTIVE

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# Abstract

In the digital age, excessive screen time and pervasive online engagement have been increasingly linked to adverse psychological outcomes among students. This study investigates the relationship between digital detoxification practices and the levels of depression, anxiety, and stress among learners within an educational context. Utilizing quantitative approach, data were collected from students across various educational institutions through standardized psychological scales and structured interviews. Quantitative analysis revealed a statistically significant negative correlation between the frequency of digital detox behaviors and reported levels of depression, anxiety, and stress. The study underscores the potential benefits of integrating digital detox strategies within educational environments to promote mental well-being. Recommendations include institutional policies for digital wellness, student workshops on mindful technology use, and further longitudinal research to explore long-term impacts.

Keywords: Digital detoxification, depression, anxiety, stress

# **BACKGROUND OF THE STUDY**

In today's hyper-connected world, digital technology has become an integral part of education, communication, and social interaction. While these technological advancements have significantly improved access to information and educational tools, they have also introduced new psychological challenges, particularly among students and educators. Prolonged exposure to digital devices and online platforms is increasingly being linked to adverse mental health outcomes, such as depression, anxiety, and stress. The constant influx of information, social media comparisons, and academic demands facilitated through digital channels can overwhelm individuals, leading to cognitive overload and emotional exhaustion. Digital detoxification-the conscious practice of limiting or eliminating the use of digital devices for a period—has emerged as a potential remedy for mitigating these negative effects. This practice is gaining attention in educational settings as a strategy to promote mental well-being, improve focus, and enhance academic performance. However, there is still limited empirical research that explores the direct relationship between digital detoxification and its psychological impacts, particularly within an educational context. This study aims to examine how digital detoxification practices correlate with levels of depression, anxiety, and stress among students or educational stakeholders. By understanding this relationship, educators, policymakers, and mental health professionals can better support the development of holistic strategies that balance the benefits of digital tools with the necessity of mental wellness. Ultimately, this research seeks to contribute to the growing discourse on digital well-being and to promote healthier digital habits in academic environments.

## INTRODUCTION

In today's digital age, the use of social media has become an integral part of the daily lives of many people around the world. Data from Statistics shows that by 2023, the number of social media users worldwide has reached 4.9 billion, with the average user spending around 2 hours 31 minutes per day on these platforms. Social media offers various benefits, such as ease of communication, access to information, and means of entertainment. However,



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overuse of social media has also raised concerns regarding its negative impact on users' mental health. The significant growth in the daily use of social media, especially amongst the younger generation, reflects an event that we should explore further. While social media can provide benefits, overuse can have negative impacts, especially on mental health and quality of life (Salleh & Sapengin, 2023; Ansari et al., 2024). The pervasive use of digital devices, particularly smartphones and social media platforms, has significantly transformed the daily lives of individuals worldwide, including Pakistan. While these technologies have provided numerous benefits, such as enhanced communication, access to information, and entertainment, their excessive use has raised concerns about potential negative consequences on mental health. In Pakistan, as in many other countries, the rising dependency on digital media has led to the phenomenon of digital overload, resulting in adverse psychological effects, such as stress, anxiety, depression, and sleep disturbances (Modibbo & Inuwa, 2020; Can, 2021; Owusu & Novignon, 2021; Ansari et al., 2024). Digital detoxification refers to the intentional process of abstaining or reducing the use of digital devices, particularly social media, to counterbalance the negative effects of overuse. This practice has gained attention in recent years as a means of improving mental health, increasing productivity, and fostering better social connections in real life. The concept of digital detoxification is especially relevant in the Pakistani context, where the digital landscape is growing rapidly, and individuals are increasingly engaged with online platforms for personal, professional, and educational purposes (Karhan, 2019; Tila & Cera, 2021; ven Zanden, 2023; Ansari et al., 2024). The rapid proliferation of digital technology has significantly transformed the daily lives of young adults, leading to pervasive engagement with social media, mobile devices, and other digital platforms. While these technological advancements offer numerous benefits, such as increased connectivity and access to information, they also present substantial risks to mental health (William, 2021; Altaf Dar et al., 2023; Geda, 2023). The growing concern over the negative impact of excessive digital media use has led to the emergence of "digital detox" interventions, which aim to mitigate these risks by encouraging individuals to disconnect from their digital devices for specific periods (Radtke et al., 2022; Kumar & Gupta, 2023). This literature review examines existing research on the relationship between digital media use, mental health outcomes, and the efficacy of digital detox interventions in reducing anxiety and depression among young adults. A substantial body of literature has documented the association between excessive digital media use and adverse mental health outcomes, particularly among young adults (Shutzman & Gershy, 2023). For instance, a recent study found that prolonged exposure to social media correlates with increased levels of anxiety, depression, and stress. The negative impact is often attributed to social comparison, cyberbullying, and disrupted sleep patterns, which are exacerbated by the ubiquitous nature of digital devices (Lopes et al., 2022). Similarly, another study reported a significant rise in depressive symptoms among adolescents and young adults that coincided with the surge in smartphone use and social media engagement. Moreover, the addictive nature of digital technology has been linked to mental health challenges (Audi & Roussel, 2024). Research studies have highlighted that internet addiction, characterized by compulsive use and an inability to control digital consumption, is closely associated with anxiety and depression (Shah, 2020). In response to the growing concerns over digital media's impact on mental health, digital detox interventions have gained popularity as a potential solution. Digital detox refers to a period during which individuals voluntarily refrain from using digital devices, with the goal of reducing stress, improving sleep, and enhancing overall well-being. Several studies have explored the effectiveness of such interventions, though the evidence remains mixed. A recent study observed that there is little evidence for increases in the associations between adolescents' technology engagement and mental health, except for the use of social media leading to emotional problems (Vuorre et al., 2021). A study has demonstrated that participants who engaged in a one-week digital detox reported significant improvements in mental well-being, including reduced anxiety and depressive symptoms (Vuorre et al., 2021). The study found that the absence of constant digital distractions allowed individuals to engage in more meaningful offline activities, such as face-to-face interactions and physical exercise, which are known to have positive effects on mental health. Similarly, another study found that short-term digital detox interventions led to reduced stress levels and improved mood, particularly among individuals who exhibited high levels of digital dependency. However, both studies were conducted in different geographical regions and focused on specific social media detox only (Russo, 2022). Previous research has linked social media use to various mental health problems. A study by Twenge found that adolescents who spent more than three hours a day on social media had a higher risk of experiencing mental health problems such as anxiety and depression (Rahat & Hayat, 2020). Shensa also reported that intensive social media use was associated with increased symptoms of



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depression and anxiety in the young adult population (Raja & Iqbal, 2019). However, there is a lack of literature on appropriate interventions to address the negative impact of social media use. The practice of digital detox, which refers to the deliberate abstention from electronic devices such as smartphones, is gaining popularity in the health and wellness industry. It is considered a viable solution to mitigate the negative consequences of excessive smartphone usage on one's well-being, social connections, and other areas of life (Anandpara et al., 2024). Radtke et al. (2022) performed a comprehensive analysis of existing research to evaluate the efficacy of digital detox programmes in enhancing factors such as well-being and health, social connections, discipline, or productivity. Their comprehensive analysis, which included 21 trials with a total of 3,625 people, revealed diverse outcomes seen in different investigations. Several studies have shown favourable outcomes resulting from interventions, whereas others have shown little impact or even adverse impacts on wellbeing (Radtke et al., 2022) A further study conducted by Coyne and Woodruff examined the consequences of a 14-day period in which young individuals abstained from social media, limiting their use to 30 minutes each day (Covne & Woodruff, 2023). According to a study, this detox has been shown to increase addiction to smartphones and social media while also improving sleep quality, overall life satisfaction, stress levels, perceived healthiness, and supportive connections (Coyne & Woodruff, 2023). However, it is essential to acknowledge that the efficacy of digital detoxes may significantly differ depending on the person and the precise parameters of the detoxification process. Hence, it is crucial to do more study in order to fully understand the processes of change and to create compelling digital detox strategies (Radtke et al., 2022). To summarize, while digital detox has the potential to reduce the adverse consequences of excess digital device use, its efficacy might be inconsistent, highlighting the need for more investigation to enhance these therapies (Radtke et al., 2022; Coyne & Woodruff, 2023). A study by Liao (2019) examined self-regulation in attention control after a two-week digital detox intervention period. Participants with low depression and anxiety symptoms showed an increase in their self-regulation skills, and the effect sizes were large. Liao (2019) reported that people with mild-to-moderate anxiety and depression symptoms improved their sleep quality with medium to large effect sizes. A medium effect from the seven-day digital detox intervention through an increase in mental well-being was observed, corresponding with results by Liao (2019) showing that participants with mild-moderate depression symptoms reported improvements in flourishing after a smartphone-use reduction period. Three studies found a significant decrease in perceived stress (Liao, 2019).

# **RATIONALE OF THE STUDY**

The pervasive use of digital devices and social media has significantly reshaped the lifestyles and learning environments of students and educators alike. While digital technology offers numerous benefits, including access to information, online learning platforms, and virtual collaboration, excessive screen time and constant connectivity have been increasingly linked to mental health concerns such as depression, anxiety, and stress. Emerging research suggests that intentional breaks from digital media-commonly referred to as digital detoxification—may help mitigate these adverse psychological effects. However, there is a notable gap in understanding how digital detox practices influence mental health within educational settings, where digital tools are both indispensable and ubiquitous. Given the mental health crisis among students and the rising demand for healthier digital habits, this study aims to explore the relationship between digital detoxification and levels of depression, anxiety, and stress, specifically from an educational perspective. By investigating how digital detox strategies impact psychological well-being among learners and educators, the study seeks to inform policies, programs, and practices that promote digital wellness in schools, colleges, and universities. This research is timely and relevant, as educational institutions strive to balance the integration of technology with the holistic development of learners. Understanding this relationship can help stakeholders—educators, mental health professionals, policymakers, and students-develop evidence-based approaches to foster healthier, more productive, and mentally resilient learning environments.

## **OBJECTIVES OF THE STUDY**

• To investigate the relationship between digital detoxification, depression, anxiety and stress

## SIGNIFICANCE OF THE STUDY

This study is significant as it explores the increasingly relevant intersection between digital behavior and mental health within educational settings. In an era where students and educators are highly dependent on digital technologies for learning, communication, and social interaction, the implications of constant digital exposure are profound. The study seeks to understand how digital detoxification—intentional breaks from digital devices—can



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influence levels of depression, anxiety, and stress (DAS), which are prevalent issues among students and educators alike. Understanding the potential benefits of digital detox can help them develop healthier digital habits, leading to improved emotional well-being, academic focus, and overall life satisfaction. The findings can inform the development of policies and interventions that promote balanced digital usage and mental health support in schools and universities. It will offer awareness about the role digital overexposure may play in their children's mental health, enabling more supportive home environments. The research may contribute to broader educational and public health strategies aimed at mitigating the negative impacts of digital overload. Ultimately, the study contributes to the growing body of literature that advocates for responsible digital consumption and underscores the importance of digital wellness as a core component of educational and mental health initiatives.

# METHOD

### **RESEARCH DESIGN**

This study was conducted to investigate the relationship of digital detoxification and psycgological burden. Correlational research design was used to complete this quantitative study. Survey was administered as a method of data collection by using questionnaires. Convenient sampling technique was used to select the 300 students as sample of the study.

## **INSTRUMENTS**

Digital Detoxification Scale (DDS) was used to measure the digital detox and Depression, Anxiety and Stress Scale - 21 Items (DASS-21) The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items (Lovibond & Lovibond, 1995).

### RESULTS

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	Digital Detoxification	Depression	Anxiety	Stress
Digital Detoxification	1	310**	295**	307**
Depression		1	.283**	.310**
Anxiety			1	.296**
Stress				1

### Table 1: Correlation matrix among Digital Detoxification, Depression, Anxiety and Stress

Table1 shows the significant negative correlation among digital detoxification, depression, anxiety and stress among university students.

## DISCUSSION

In an era of pervasive digital connectivity, university students are increasingly exposed to prolonged screen time and continuous online engagement, which has raised concerns about its impact on mental health. This study explores the relationship between digital detoxification—the intentional reduction or abstinence from digital device usage—and the mental health of university students. The results revealed a significant positive correlation between regular digital detoxification and improved mental well-being, including reduced symptoms of anxiety, depression, and stress. The results of this study provide significant insights into the impact of digital detox interventions on depression, anxiety and stress. The key findings indicate a positive association between digital detox and improved mental health, specifically in reducing anxiety and depression. This is consistent with previous study (Saleem & Jan, 2024), which highlighted the adverse effects of prolonged digital engagement on mental health, and study (El-Khoury et al., 2021), which highlighted the positive association between digital detox and improved mental health. However, our study not only reaffirms these findings but also adds to the growing body of evidence by emphasizing the potential of structured digital detox interventions in mitigating these negative effects. Findings of the current are consistent with previous study that reveal digital detox interventions reduced depression and anxiety levels among young adults and improved mental health improvement. Moreover, male



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adults significantly improve their level of mental health as compared to female. Furthermore, unemployed adults reported higher level of depression and anxiety as compared to employed. In addition, demographic variables play a significant role in reducing psychological burden. Tailoring digital detox programs based on occupational needs, such as targeted support for unemployed individuals who experience heightened anxiety and depression, could also promote mental health equity and provide accessible, non-clinical mental health support. Overall, the study underscores the value of digital detox as a proactive approach to mental health management in a digitally saturated environment (Jauhar et al., 2025). A critical observation from our findings and literature review is that the duration and frequency of digital detox sessions play a crucial role in determining the effectiveness of the intervention. Participants who engaged in regular, shorter detox periods reported more substantial mental health improvements than those who opted for longer but infrequent detoxes. This is in contrast to (Covne & Woodruff, 2023), which suggested that more extended detox periods might be necessary for noticeable improvements in well-being. Thus, suggesting that consistency, rather than length, is the key to success. These findings are particularly important in the context of modern lifestyles, where the feasibility of extended detox periods might be limited. The digital detox intervention led to a statistically significant reduction in anxiety across all demographic groups. Gender-wise, males experienced a greater reduction in anxiety scores than females, aligning with findings in (El-Khoury et al., 2021) study, who reported that men might respond more favorably to digital detox due to differences in coping mechanisms and stress reactivity. However, this finding diverges from (He et al., 2024), which suggested that females might benefit more from digital disengagement interventions due to their higher baseline social media usage and susceptibility to online stressors. Future studies could explore these gender differences further, examining whether specific intervention components are more effective for one gender over the other. In terms of occupational status, unemployed participants had the highest baseline anxiety levels and variance postintervention, underscoring the link between employment status and mental health. This finding indicates that unemployment is strongly associated with elevated anxiety and depression due to financial insecurity and social isolation. Moreover, employed individuals, especially part-time workers, showed significant anxiety reductions post-detox, which suggests that digital disengagement could serve as a helpful mental health intervention within work environments. A study by Liao (2019) examined self-regulation in attention control after a two-week digital detox intervention period. Participants with low depression and anxiety symptoms showed an increase in their self-regulation skills, and the effect sizes were large. A study by Liao (2019) examined self-regulation in attention control after a two-week digital detox intervention period. Participants with low depression and anxiety symptoms showed an increase in their self-regulation skills, and the effect sizes were large. Liao (2019) reported that people with mild-to-moderate anxiety and depression symptoms improved their sleep quality with medium to large effect sizes. A medium effect from the seven-day digital detox intervention through an increase in mental well-being was observed, corresponding with results by Liao (2019) showing that participants with mild-moderate depression symptoms reported improvements in flourishing after a smartphone-use reduction period. Three studies found a significant decrease in perceived stress (Liao, 2019). The study also revealed substantial reductions in depression scores across demographics, moving from moderate to mild levels postintervention. Similar to anxiety results, females exhibited slightly higher post-intervention depression scores than males, which highlights gender-specific differences in stress processing, with females tending to report higher depressive symptoms even postintervention. Occupationally, unemployed individuals had the highest initial depression levels, which may reflect a strong correlation between unemployment and depression severity, emphasizing the need for accessible mental health interventions for this demographic.

## CONCLUSION

This study explored the intricate relationship between digital detoxification and the psychological well-being of individuals—specifically in the domains of depression, anxiety, and stress—from an educational perspective. The findings suggest that excessive digital engagement, particularly through social media and screen-based activities, correlates with elevated levels of psychological distress among students and educators alike. Conversely, intentional digital detox practices—ranging from reduced screen time to structured offline activities—were associated with noticeable improvements in mental well-being, academic focus, and overall life satisfaction. The results reinforce the importance of promoting digital balance within educational settings. Incorporating digital detox strategies into school curricula and professional development programs can help students and teachers cultivate healthier relationships with technology. By fostering mindfulness and encouraging periodic



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disconnection, educational institutions can play a pivotal role in mitigating the adverse psychological impacts of digital overexposure. Ultimately, this study emphasizes the need for a more conscious and regulated use of digital tools in education, highlighting digital detoxification not as a rejection of technology, but as a strategic approach to enhance mental health and academic productivity.

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