2025 Volume: 01 Issue: 05 www.ijrpa.com Review Article

International Journal Research Publication Analysis

Page: 410-416

PSYCHOLOGICAL CONSEQUENCES OF PROLONGED CODING AND SCREEN ENGAGEMENT IN MCA STUDENTS

Gorde Anuja Bhikaji, Pathave Jay Pandharinath, Dhawale Sanket Chandrabhan

MCA Student Agasti Institute of Management, Computer Application and Research (AIMCAR).

Assistant Professor Agasti Institute of Management, Computer Application and Research (AIMCAR).

Assistant Professor Agasti Institute of Management, Computer Application and Research (AIMCAR).

Article Received: 01 August 2025
Article Revised: 20 August 2025
Published on: 30 September 2025

***Corresponding Author: Gorde Anuja Bhikaji**
MCA Student Agasti Institute of Management, Computer Application and Research (AIMCAR). Email ID:

ABSTRACT

As digital environments become more and more demanding, students in the information technology area are more likely to experience stress, eye strain, mental weariness, trouble concentrating, and sleep problems. Too much time spent in front of screens and too much coding effort is to blame for this. The situation is exacerbated by insufficient institutional support networks, academic stress, and a lack of awareness regarding digital well-being. To address this gap, this study analyses contemporary trends in students' screen time and coding duration, assesses their effects on mental health, and offers actionable recommendations for educational institutions to foster sustainable digital practices. The primary objective of the study is to highlight this overlooked issue and promote a health-oriented educational framework that equally prioritises students' emotional and mental health alongside the enhancement of their technical competencies.

KEYWORDS: Screen time, Continuous coding, mental health, Digital well-being, MCA students.

INTRODUCTION: Students studying Information Technology (IT) spend a lot of time in front of screens coding, watching online lectures, doing homework, and learning about new tech tools in the digital age.

Because programming and development courses are so hard, Master of Computer Applications (MCA) or similar IT students often spend significant periods of time in front of a screen.

In today's digital age, technology is very important for technical students, especially those who want to get a Master in Computer Applications.

Students, who code, make software, solve programming challenges, and use different development environments need to spend a lot of time in front of digital screens. For IT education, it's very important to use laptops, desktops, and mobile phones to interact with screens. It's important for pupils to be how to use computers and other technology, but too much coding and screen time might be bad for their mental health. This includes not being able to sleep, feeling anxious, having trouble concentrating, and being tired. Stress from schoolwork, deadlines for projects, and too much time spent on screens make things worse. Coding is very important in the IT business, but people frequently forget about the mental and physical health risks that come with spending too much time in front of a computer screen and programming. Students may experience ocular tiredness, altered sleep patterns, anxiety, decreased motivation, irritability, and a lowered attention span. These problems often happen when you code for a long time without taking breaks or look at a screen late at night.

This study examines the influence of digital activities on the stress, mood, focus, sleep, and emotional well-being of IT students. Surveys provide data and highlight the importance of integrating technical education with individual well-being.

Research Methodology: This research employed a mixed-methods approach, integrating qualitative student input with quantitative survey data. We used structured multiple-choice, multiple-choice, and Likert scale surveys to get numbers on how much time people spend on screens, how stressed they are, how well they sleep, and how many hours they code. We got qualitative data on how people deal with things and their own experiences by asking open-ended questions. To find out about things like daily coding, lifestyle choices, health issues, and mental stress we used a Google Form poll. The questionnaire was evaluated with a small group of people to make sure it was clear, and it comes in many versions to make sure it covers everything. We chose the target group on purpose. There were between 100 and 150

MCA and IT students who used screens for at least eight hours a day. We sent out surveys to groups of students by email and WhatsApp. We utilised WPS Office to change documents and MS Word to write reports. MS Excel was used to sort, clean up, organise, and show data in charts and graphs. The main themes of the study were coding time, screen time, sleep quality, weariness, stress, physical symptoms, and how to deal with them. During the research, ethical guidelines made sure that participation was voluntary, that information was kept private, and that everything was clear.

Data Analysis: The findings of this survey highlight a clear pattern of intensive and prolonged screen engagement among the respondents, predominantly Semester 3 students (69.7%), who represent the core sample of this study. A considerable proportion of participants (46.9%) reported spending more than eight hours per day on screens, and over half (52%) continued to use screens for entertainment even after completing their coding tasks. This indicates that screen use extends well beyond academic or professional requirements and has become an integral part of their daily routine.

Patterns of coding behaviour reinforce this observation. Nearly four in ten respondents (39.4%) code for more than eight hours per day, and almost half (47%) work for one to two hours without taking a break, while 20% continue for more than four hours uninterrupted. These findings suggest a culture of extended, unbroken engagement with digital tasks, which may contribute to both cognitive overload and physical strain.

The consequences of these habits are evident in both psychological and physiological domains. Mental fatigue is highly prevalent, with 45% of respondents reporting tiredness or exhaustion almost every time after coding or screen work, and 50% admitting to postponing or skipping tasks due to such fatigue. Moreover, stress while coding is widespread, as 38% consistently and 16% frequently experience stress during problem-solving activities.

These behavioural patterns also influence social and physical well-being. More than half of the participants (53%) acknowledged skipping social or family activities because of prolonged coding or screen work. Physical discomfort is common, with high incidences of eye strain or dryness (77%), headache (72%), and back pain (68%), alongside reports of sleep disturbance (57%). These symptoms collectively underscore the health risks associated with sustained screen exposure.

Sleep patterns are similarly affected: 38% of respondents reported sleeping late almost every night, and 26% most of the time, suggesting that screen-related tasks extend into late hours and disrupt regular rest.

Taken together, these results portray a lifestyle marked by intense digital engagement, insufficient recovery periods, and notable health repercussions. From a research perspective, these findings reinforce concerns in existing literature about the interconnection between excessive screen time, mental stress, and physical health deterioration. They underline the importance of structured breaks, ergonomic practices, and balanced daily routines to mitigate the negative impacts of prolonged screen and coding activity.

The survey data reveal notable patterns of behavioural and psychological responses to prolonged coding and screen exposure, underscoring its influence on students' health, habits, and future professional outlook.

A significant concern is the disruption of healthy eating routines: 33% of respondents regularly miss meals and an additional 43% sometimes or occasionally skip meals, indicating that screen-related work negatively affects dietary habits and overall well-being.

In terms of psychological impact, 55% of students report feeling guilty when taking breaks, with another 14% experiencing this occasionally, suggesting a culture of internalised pressure to remain continuously productive, even at the expense of rest. Such guilt reflects a broader performance-driven mind-set often associated with the technology and IT learning environment.

To manage the stress associated with extended screen time, 83% of respondents adopt short breaks as their primary coping mechanism, while smaller proportions engage in meditation or breathing exercises (22%), physical exercise (19%), or attempt digital detox (10%). Only 3% report taking no measures, underscoring a strong collective awareness of the need for stress management, although most strategies remain short-term and reactive rather than transformative.

Concerns about the long-term implications of these habits are evident. A substantial 64% of students are definitively worried that prolonged screen use and coding-related stress may negatively affect their future IT careers, with a further 25% expressing some degree of

concern. This anticipatory anxiety reflects the perceived link between present academic practices and future professional sustainability.

Moreover, the mental strain associated with extended screen engagement appears to erode confidence in skill development: 43% of students feel less confident about learning new skills due to coding-related mental stress, and 35% report occasional effects, highlighting how psychological fatigue can constrain academic and professional growth.

Despite these challenges, students employ various stress-relief practices to regain balance. The most frequently reported activities include listening to music (86%), spending time with family (75%), and social interactions with friends (63%), followed by travel or short trips (57%), meditation or yoga (47%), and watching movies or shows (29%). These findings illustrate that social connection and leisure activities play a crucial role in emotional recovery, supporting existing research that emphasises the importance of non-digital, restorative practices in mitigating the effects of screen-induced stress.

Overall, the data highlight a complex interplay between high screen exposure, disrupted lifestyle habits, and mental health pressures, revealing not only immediate consequences for well-being but also students' awareness of potential long-term professional implications. These insights reinforce the need for structured wellness strategies, institutional support for balanced learning, and the promotion of healthier work–life boundaries within academic and IT-related training environments.

Findings

- **Excessive Screen & Coding Time:** Nearly half spend over 8 hours daily on screens and 39% code for more than 8 hours, often with long, uninterrupted sessions.
- **Extended Screen Use:** Over 50% continue using screens for entertainment even after coding.
- **Mental Strain:** 45% feel mentally exhausted and 38% experience frequent stress, while 55% feel guilty taking breaks.
- **Work & Lifestyle Impact:** Screen fatigue causes 50% to postpone tasks, 53% to skip social/family activities, and 56% to delay or miss meals.
- **Health Concerns:** Eye strain (77%), headaches (72%), back pain (68%), and disrupted sleep (38% sleep late almost nightly) are common.

- **Future & Learning Effects:** 64% worry coding stress may harm their IT careers; 43% feel less confident in learning new skills.
- **Coping Strategies:** Most manage stress with short breaks (83%) and relax through music (86%), family time (75%), or social outings (63%).

Suggestions: The suggestions emphasise the need to limit daily screen use through planned breaks and to replace excessive screen time with outdoor or offline activities. Students are advised to follow a balanced coding schedule that focuses on the quality of practice rather than long hours. Regular short breaks, such as the 50–10 rule, with stretching, hydration and eye relaxation exercises are recommended to reduce fatigue. After coding, non-academic screen use should be minimised and replaced with hobbies or family time to help lower overall exposure. Stress can be managed through mindfulness, yoga, group study and by celebrating small achievements. Effective time management, such as the Pomo Doro technique, along with prioritising important tasks, helps to avoid burnout. Maintaining regular meals, drinking sufficient water and keeping healthy snacks nearby are essential for good nutrition even during heavy workloads. A consistent sleep routine of at least seven hours and avoiding screens before bedtime can improve rest and recovery. Physical health can be protected by using ergonomic seating, keeping good posture and following the 20-20-20 eye rule. Finally, building confidence and career readiness requires group practice, setting realistic goals, seeking counselling support and engaging in regular relaxation activities such as listening to music, spending time with family and friends, or pursuing creative hobbies.

CONCLUSION

The study confirms that prolonged screen exposure and extended coding hours have a measurable impact on MCA students' mental, physical, and emotional well-being. High levels of fatigue, stress, sleep disturbance and physical discomfort such as eye strain and back pain demonstrate the strain of continuous digital engagement. These habits also disrupt eating patterns, reduce social interaction, and weaken confidence in skill development, raising concerns about future career readiness.

Although many students attempt to cope through short breaks, music, or social activities, such strategies remain temporary and insufficient. The findings underscore the need for structured interventions, including digital-wellness programs, time-management support, and stress-management workshops. Both institutions and students must actively promote healthier

routines, adequate rest, and balanced work–life practices to sustain academic performance and long-term professional growth.