Changes in Mindful Technology Use and Digital Well-Being Following a Vipassana Mindfulness Program: An Exploratory Case Study of College Students

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ABSTRACT

The present study examined the changes in mindful technology use and digital well-being following a four-week Vipassana meditation training program among college students. A pretest and posttest case study design was used with one male and one female college student from Coimbatore, Tamil Nadu. Participants spent more than five hours a day using digital devices and reported mild digital fatigue, distraction, and emotional strain. Before and after the programme, the study variables were measured through the Digital Well-Being Scale (DWS) and Mindful Technology Use Inventory (MTUI-32). The male participant's digital well-being score increased from 58 to 72, while the female participant's score increased from 61 to 76. Scores for mindful technology use increased from 45 to 63 for the male participant and from 68 to 81 for the female participant. The findings from weekly reflection journals suggested perceived changes in attention, emotional balance, and responses to digital distractions. These results are preliminary and cannot be generalised because the sample was small and there was no control group; the observed changes cannot be attributed specifically to Vipassana meditation.

Keywords: Vipassana, meditation, digital well-being, mindful technology use, college students

INTRODUCTION

Technologies have altered how people operate, study, and engage. There have been worries about mental health due to serious and unregulated use, although it has eased the accessibility of information. The overuse of social networking sites may cause addiction (Kuss & Griffiths, 2017) while the problematic of mobile phone usage can lead to negative effects on day to day life (Billieux et al., 2015). Research shows depressive and anxiety problems in people who have got addicted to using smartphones (Elhai et al., 2017). Moreover, mobile phone using also associated with mental health problems (Thomée, 2018). The need for conscious and balanced technology use suggests the relevance of means-tested approaches, further an association between moods and usage.

The term digital well-being describes the extent to which the use of digital devices and online spaces supports or harms a person's overall well-being (Mathew et al., 2023). Well-being is an essential component of mental health, and higher levels of well-being are associated with better psychological functioning (Keyes, 2005). As people increasingly rely on digital devices, there is a need to build the inner skills to regulate this use. Turel and Qahri-Saremi (2016) explained that problematic use of social networking sites may occur when habitual impulses outweigh self-control. Cognitive failures in daily life have also been linked to problematic internet and mobile phone use (Hadlington, 2015).

Mindfulness is often described as awareness that arises through paying attention on purpose, in the present moment, and nonjudgmentally (Kabat-Zinn, 2003). Mindfulness-based programs have been found to enhance psychological well-being as well as emotional regulation (Keng et al., 2011). Moreover, they have been used to

treat addictive behaviours (Van Gordon et al., 2017). The findings of the meditation study show that it affects the brain systems used for attention and emotion (Fox et al., 2016; Tang et al., 2015). The word vipassana means insight as applied in a form of meditation by the Buddhists that aims at becoming aware of bodily sensations with a balanced mind and unreactive posture (Hart, 1987).

Making use of technology necessitates clear awareness and purpose while using digital technology, together with awareness of one's actions and avoidance of automatic or impulsive use (Seethalakshmy et al., 2025). While Vipassana has received research attention in meditation and clinical settings, its application to digital well-being requires further investigation. The present four-week intervention was based on the Vipassana method described by Mahasi Sayadaw, using mental noting to observe the rising and falling movements of the abdomen and to note thoughts, sensations, and other experiences as they arose (Mahasi Sayadaw, 1997). The programme aimed to support awareness, emotional balance, and conscious technology use among young people. The Digital Well-Being Scale (DWS; Mathew et al., 2023) and the Mindful Technology Use Inventory (MTUI-32; Seethalakshmy et al., 2025) were used to assess the outcomes.

MATERIALS AND METHODS

The present study employed a pretest-posttest design involving college students, with one male and one female participant in the Coimbatore region of Tamil Nadu, India. Both of them had the experience of using digital technology on a regular basis for personal, professional, and academic purposes. Moreover, the participants were also exposed to digital devices for more than five hours in a day, with the psychological experiences of mild digital fatigue, distraction, and emotional distress. The inclusion criteria of the study involve participants who are using technology on a regular basis, and they are required to be in the age range of 18 to 25 years old and consenting to take the four-week vipassana meditation training program. Furthermore, individuals who are already exposed to meditation practices and under psychiatric treatment were excluded from the study.

Participant 1

Participant 1 was a 23-year-old male postgraduate student from the Coimbatore area of Tamil Nadu. For personal, academic and professional reasons, he spent over five hours a day on digital devices. This has led to some mild pain in the fingers after using the digital devices for long periods, and distractions as well as emotional strain. His participation in the four-week programme addressing these issues and expressed a desire to use technology more mindfully. However, the study didn't provide more detailed information about his technology use for academic and personal purposes or how often he engaged in them. Additionally, he had no previous experience with meditation and was not undergoing any psychiatric treatment.

Participant 2

Participant 2 was a 20-year-old female student, who is an under-graduate from the Coimbatore area of Tamil Nadu. After using the digital devices for more than 5 hours a day, she reported mild digital fatigue and distraction about the academic workload and social media. Her involvement in the program related to her stated challenges of managing academic work with excessive digital usage. Usually, she used her digital devices for academic works and social media. However, their applications and time spent on each was not noted. She had never practiced meditation before or received treatment from a psychiatrist.

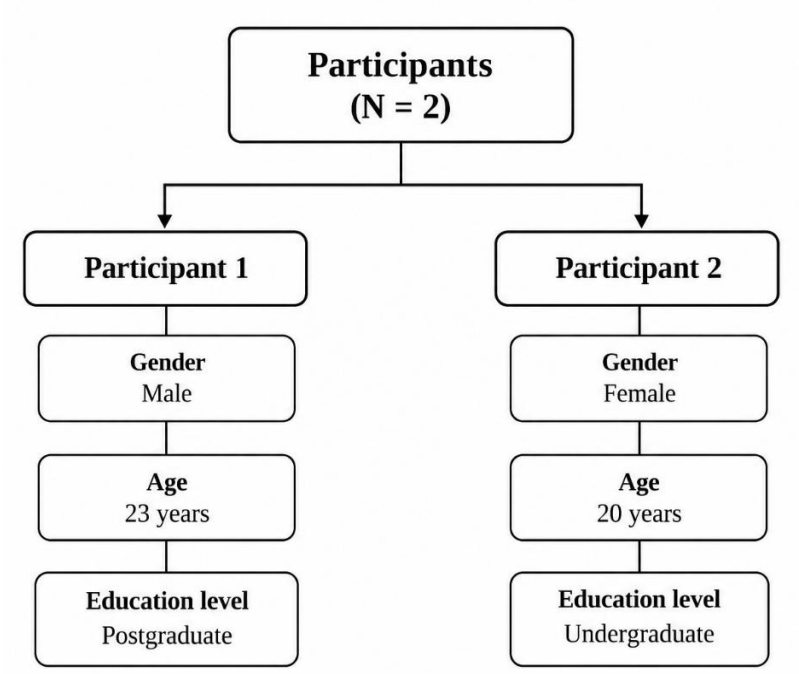
Table 1: *Shows the Procedure of the Four-Week Vipassana Mindfulness Training Program Study*

Stages	**Procedure**
Pre test	Administering the Mindful Technology Use Inventory (MTUI) and Digital Wellbeing Scale (DWS)
Implementation of Vipassana Meditation (Mahasi Sayadaw's method) as an intervention: daily practice for 40 minutes over four weeks, with sitting duration increased gradually.	

Stages	Procedure
Group session	Weekly 30-minute group discussion: discuss meditation experiences, difficulties and challenges; provide guidance and motivation.
Post-test	Re-administering the Mindful Technology Use Inventory (MTUI) and Digital Wellbeing Scale (DWS)
Data Analysis	Calculate pre test to post test score changes for each participant and express the changes as percentages

The aim of the four-week Vipassana Meditation Training Program was to support awareness, emotional balance, and mindful technology use. The practice was based on the instructions described by Mahāsi Sayādaw (1990, 1997). Participants were guided to sit quietly and observe the natural rising and falling movements of the abdomen, mentally noting 'rising' and 'falling' as the movements occurred. They were instructed not to force or change their breathing. When thoughts, mind-wandering, or bodily sensations such as stiffness, discomfort, or pain arose, they were encouraged to notice and mentally note the experience before returning attention to the abdominal movements (Mahāsi Sayādaw, 1997). Each participant was scheduled to practise for 40 minutes daily and attended a weekly 30-minute group discussion with the instructor. The group discussions covered meditation experiences, difficulties, and progress.

Figure 1: *Shows the Participant Profile*



The sitting duration was increased gradually according to participants' capacity. One participant initially could not remain seated for more than 20 minutes. After one week, this participant was able to sit for 40 minutes, and by the second week both participants could complete the full 40-minute sitting practice in every session. The pretest and posttest scores were compared descriptively, and participants' journal entries were reviewed for recurring descriptions of their experiences during the programme.

RESULTS AND OBSERVATIONS

Both participants attended the programme and completed the recorded home practice throughout the four-week VMTP. The results in Table 2 show that DWS and MTUI-32 scores were higher at posttest than at pretest. Figure 1 presents the participant profiles, Figure 2 outlines the procedure, and Figure 3 displays the pretest and posttest scores.

Table 2: *Shows the Pretest and Posttest Scores on Digital Well-Being and Mindful Technology Use*

Participant	Gender	Age	Education level	DWS		MTUI-32	
				Pretest Score	Posttest Score	Pretest Score	Posttest Score
1	Male	23	Postgraduate	58	72	45	63
2	Female	20	Undergraduate	61	76	68	81

Note. DWS = Digital Well-Being Scale; MTUI-32 = Mindful Technology Use Inventory.

The male participant was a 23-year-old postgraduate student who began the Vipassana Meditation Practices with a DWS score of 58 and an MTUI-32 score of 45 (Table 1). These scores demonstrate moderate digital well-being and a lack of mindfulness with technology. In the first week, he had a tough time concentrating as he often got distracted by messages and notifications. By the second week, he has started consciously observing his technology use and made a conscious effort to use it less. He was less anxious during study hours and did not feel like he needed to check the phone. In the weeks that followed, he was responding to digital stimuli mindfully rather than reactively. According to final scores of Digital Wellbeing is 72 and Mindful Technology Use is 63 indicating that the participant is doing much better with greater awareness, more purposeful use and less reactivity.

A 20-year-old female undergraduate began the program with the digital wellbeing scores of 61 and Mindful technology use scores of 68 respectively. This indicates the participants are experiencing high well-being status and some awareness of her technology use before Vipassana meditation training. Initially, she found it difficult to stay consistent as her academic work and social media were taking up the most of her time. As the programme progressed, she became aware of her online behaviour, which in turn allowed her to control its use of the phone purposefully. When doing her academic works, she felt calmer and more focused. She was also less reactive to notifications. Following the completion of the next four weeks, her scores on the Digital Wellbeing and Mindful technology use increased to 76 and 81, respectively, which meant that she was employing technology in a more conscious and purposeful manner and her digital well-being had improved well after following the meditation programme.

Both participants had higher posttest than pretest scores on the two measures. Their accounts also described becoming more conscious and purposeful in their use of technology and less reactive to digital distractions. One participant initially found it difficult to remain seated for more than 20 minutes; after one week, the participant was able to complete the full 40-minute sitting practice. By the second week, both participants were able to remain seated for 40 minutes in each session. Because questionnaire scores were collected only before and after the programme, these results do not establish continuous week-by-week improvement or demonstrate that meditation caused the changes. However, the scale data were collected only at pretest and posttest; therefore, continuous week-by-week change cannot be established from these scores. The results are descriptive and should be interpreted as preliminary observations rather than evidence that the intervention caused the changes.

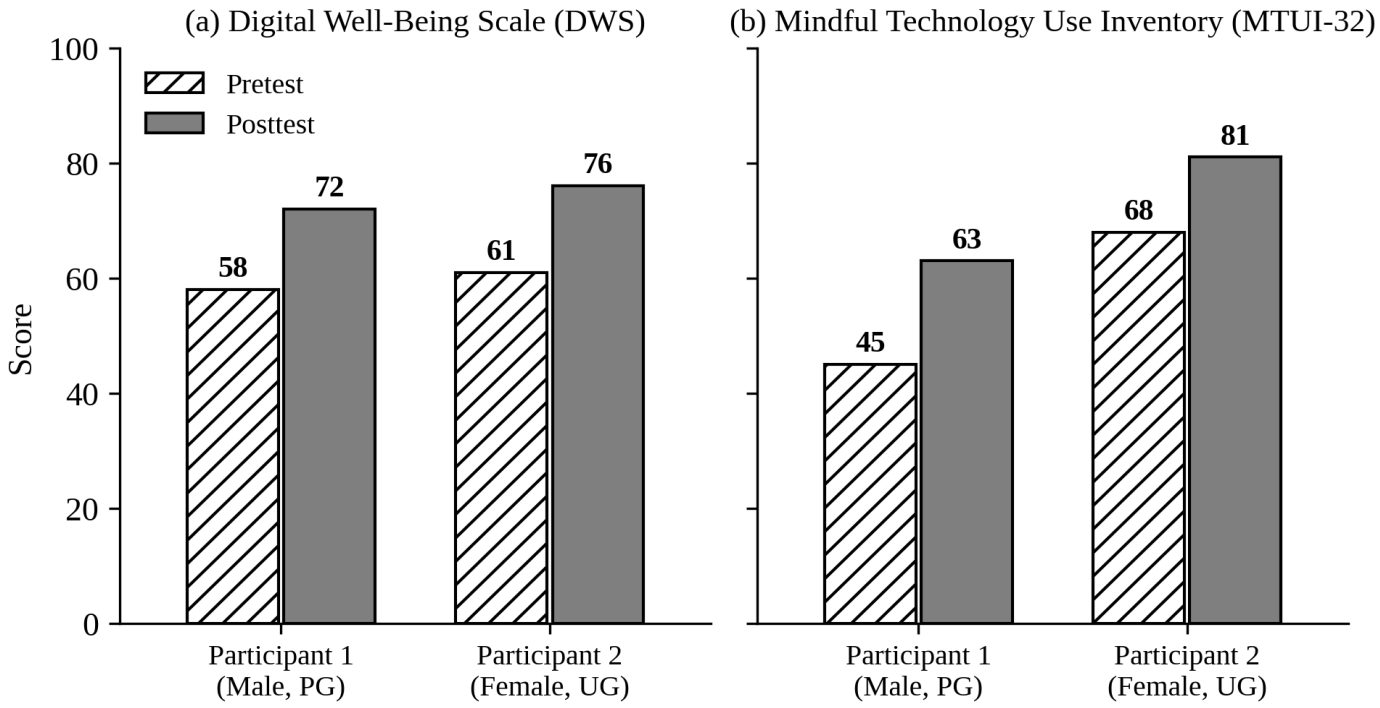
Table 3*: Shows the Change and Percentage Increase in Digital Well-Being and Mindful Technology Use*

Participant	Change in DWS	Increase in DWS (%)	Change in MTUI-32	Increase in MTUI-32 (%)
Male (PG)	14	24%	18	40%
Female (UG)	15	25%	13	19%

Note. Change = posttest score minus pretest score. Percentage increase = change divided by pretest score. DWS = Digital Well-Being Scale; MTUI-32 = Mindful Technology Use Inventory; PG = postgraduate; UG = undergraduate.

Table 3 indicates higher DWS and MTUI-32 scores for both participants at posttest. The male participant's DWS score increased from 58 to 72 (24.1%), and his MTUI-32 score increased from 45 to 63 (40.0%). The female participant's DWS score increased from 61 to 76 (24.6%), and her MTUI-32 score increased from 68 to 81 (19.1%). These descriptive changes indicate that the scores were higher after the programme, but they cannot establish a causal effect of Vipassana meditation, particularly given the two-participant sample and absence of a control group.

Figure 3: *Shows the Pretest and Posttest Scores on the Digital Well-Being Scale and the Mindful Technology Use Inventory*



Note. PG = postgraduate; UG = undergraduate. Values above the bars are raw scores.

DISCUSSION

The case study examined changes in digital well-being and mindful technology use following a four-week Vipassana Meditation Training Program among college students from Coimbatore, Tamil Nadu. Both participants had higher posttest scores on the DWS and MTUI-32. The male participant's DWS score increased from 58 to 72 and his MTUI-32 score from 45 to 63, while the female participant's scores increased from 61 to 76 and from 68 to 81, respectively. The journal accounts also described greater awareness of digital distractions, improved focus, and more deliberate responses to notifications. Previous research has discussed mindfulness in relation to psychological health and well-being (Kabat-Zinn, 2003; Keng et al., 2011). Mahāsi Sayādaw's method emphasises observing bodily movements and sensations, noting thoughts when they arise, and returning attention to the primary object of meditation (Mahāsi Sayādaw, 1990 & 1951). In the present programme, participants' reports of greater awareness and less reactive responses to digital distractions are consistent with the practice of observing thoughts and experiences before responding to them.

The reflection journals provided additional descriptions of the participants' experiences. Participants reported feeling calmer, more focused, and less reactive to notifications, alongside more conscious and purposeful technology use. One participant initially could not remain seated for more than 20 minutes, but was able to sit for 40 minutes after one week. By the second week, both participants could complete the full 40-minute sitting practice in every session. This observation describes participants' gradual adjustment to the sitting practice during the programme. The journal entries included recurring descriptions of attention and focus, emotional balance, conscious technology use, and responses to digital notifications. These accounts complement the pretest and posttest scores by describing the participants' perceived experiences during the programme.

CONCLUSION

The present study found that both participants had higher posttest scores on mindful technology use and digital well-being following the four-week Vipassana meditation programme. Their journal accounts described perceived changes in attention, focus, emotional balance, and responses to digital distractions. One participant initially could not sit for more than 20 minutes but was able to complete 40 minutes after one week; by the second week, both participants could sit for 40 minutes in every session. These preliminary observations provide a basis for further study of Mahāsi Sayādaw's Vipassana practice in relation to mindful technology use and digital well-being.

LIMITATIONS

1. The study included only two participants, which limits the transferability of the findings to other college students.

2. The study used a pretest–posttest design without a control or comparison group; therefore, changes cannot be attributed solely to the meditation programme.

3. Outcomes were measured over a four-week period using self-report scales and reflection journals, and the study did not assess whether the observed changes were maintained over time.

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