



Examining The Relationship between Digital Fatigue, Academic Stress and Student Well-Being in Hybrid Learning Environments in Pakistani Higher Education

Dr. Amna Umar¹, Mamuna Maria², Dr. Shazia Ejaz³

¹ Founder/ CEO, Tulu e Mohtasham Publications, Lahore, Pakistan

Email: amnaumar2016@gmail.com

² Lecturer School of Education, Minhaj University Lahore

Email: mamuna.edu@mul.edu.pk

³ Teaching Assistant, Department of Secondary Education, Lahore College for Women University, Lahore

Email: shaziaejaz777@hotmail.com

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Corresponding author:

Dr Amna Umar

Email:

amnaumar2016@gmail.com

ABSTRACT

The aim of this study was to investigate the relationship between digital fatigue (DF), academic stress (AS) and student well being in higher education-based hybrid learning in Pakistan. As the introduction of online platforms and learning environments paralleled traditional classroom learning, new challenges arose, especially in relation to students' psychological health in online learning environments. Survey with 412 undergraduate and postgraduate students from four major institutions Lahore College for Women University (LCWU), the University of Faisalabad, Quaid-e-Azam University Islamabad and University of Education Lahore on their views on current situations and problems, followed by follow-up-interviews with 24 students to gain in-depth knowledge of their views on the subject were used. Results showed the existence of a statistically significant positive correlation between digital fatigue and academic stress, meaning that spending long periods of time staring at screens and multitasking added to the levels of anxiety and reduced satisfaction in academic subjects. Additionally, regression analysis results showed digital fatigue and academic stress to be good predictors of decreased student well-being in terms of their emotional resilience and motivation. The qualitative findings corroborated these findings, including common themes around eye strain, cognitive overload and sensation of loneliness. Participants indicated that there were not sufficient and effective supports for their concerns in the institutions, including the support provided through catering and counselling services as well as flexible scheduling times. The study found that flexible learning environments were effective in helping to ensure flexibility, however, when no appropriate attitudes are in place, it will lead to over-exertion and stress. The results revealed the critical need for the adoption of comprehensive strategies that not only focus on technological advancements but also place emphasis on student centred initiatives for well being at the University level in Pakistan. Preventing digital fatigue and academic stress before they even occur will contribute to creating healthier schools and improving education success.

Introduction

Digital technologies have revolutionised the way teaching and learning takes place in higher education institutes around the world, and they are becoming more and more pervasive (Ahmad, Majeed & Yousaf, 2024; Ahmad, Parveen & Yousaf, 2022). The COVID 19 pandemic in Pakistan led to shift towards online and hybrid learning, thus new platforms were adopted by universities for online or combined learning. These changes were improvements on accessibility and flexibility, but also presented new difficulties for

students, especially regarding psychological well-being. All of these have helped in creating digital fatigue, characterised by emotional stress, difficulty in concentration and mental fatigue (Aslam, Javed, & Sultana, 2026; Bibi, Yousaf & Shehzadi, 2021). The competitive setting of higher education has become intensified in the digital world, heightening concerns regarding well being of the students and the institutions' responsibilities for such (Perveen, Nazir, & Khan, 2022; Imtiaz, Syeda & Yousaf, 2023).

Significance

This research is of special value because it sheds light on the interconnections of digital fatigue, academic stress, and academic well being in a blended learning context. Many studies have been conducted in the field of online learning worldwide, whereas efforts have been few to investigate its problems in the higher education system in Pakistan, where the problems of dismal infrastructure and socio-economic inequalities further exacerbate the situation (Kakar, Khan, Saeed, & Katpar, 2026). Policymakers, school educators and university leaders need to know these linkages to be able to better develop interventions that increase student resilience, decrease stress and improve student outcomes (Khalid, Naqvi, Yousaf, Hashmi & Tayyaba, 2025). The results enrich the field of educational psychology and higher education governance and lay the foundation for empirical relevant recommendations in the field of sustainable hybrid learning environments (Khalid, Yousaf & Ashfaq, 2026).

Problem Statement

Although hybrid learning has become more commonplace, Pakistani universities have yet to develop in-depth policies that could allay the digital fatigue and academics stress (Majeed, Ahmad & Yousaf, 2023). Lack of awareness in the institution, student complaints of eye strain, heavy workload, and lack of companionship (Fatima, Malik, Ahmad, & Aziz, 2025). Digital habits not addressed by systematic policies has led to reduced motivation among students and jeopardized their academic achievement (Mumtaz, Aziz, Yousaf & Saboor, 2024). The gap highlights the importance of exploring the relationship between digital fatigue and academic stress and their interplay on students' well-being in a hybrid engagement pattern.

Objectives

- To explore the link between digital fatigue and academic stress of University students in Pakistan.
- To examine the evidence of digital fatigue/depression and academic anxiety in relation to student well being in hybrid learning.
- To discover missed institutional opportunities and to suggest ways to improve digital learning through institutional strategies.

Research Questions

- What is the relationship between digital fatigue and academic stress in Pakistani higher education?
- How do digital fatigue and academic stress affect student well-being in hybrid learning environments?
- What institutional measures can mitigate the negative effects of digital fatigue and academic stress?

Gaps

There are a few studies that have investigated academic stress and challenges with online learning during COVID 19 (Perveen et al. 2022; Fatima et al. 2025) but there has been little research conducted on digital fatigue as it is a discrete construct in Pakistan. The effects of digital fatigue, academic stress, and student well being in hybrid space are troublesome and little research exists on the topic (Pasha, Siddiqui & Yousaf, 2021). Furthermore, the literature leaving from the challenge of institutions' governance and policy responses towards them is lacking.

Literature Review

Digital Fatigue in Higher Education

Digital Fatigue: mental and physical exhaustion that can occur from extended digital involvement (Qadri, Rafique & Yousaf, 2021). The research conducted in Pakistan shows that exposure to the screen continuously negatively impacts on emotional intelligence and psychological well-being of the children (Aslam et al., 2026). International studies have shown that digital fatigue has a negative impact on motivation, concentration and academic achievement (Lumongsod et al., 2026; Rehan, Faisal, Yousaf & Faisal, 2026).

Academic Stress and Student Well-Being

It has been generally acknowledged that academic stress in the academic environment is a well documented phenomenon, related to the stress from workload, competition and performance stress (Shabbir, Yousaf, Ahmad & Saeed, 2026). The period of COVID-19 made the online learning methods more stressful and has given rise to health complaints among students in Pakistan (Perveen et al., 2022; Shehzadi, Afridi, & Yousaf, 2020). Stress has been found to predict negatively psychological well being, which leads to poor resilience and satisfaction levels (Fatima et al., 2025).

Hybrid Learning Environments

The use of a hybrid approach to teaching and learning involves both online and in-person learning and requires cognitive flexibility but poses greater cognitive demands . There is evidence that hybrid experiences increase digital inequities, especially in rural settings, impacting well-being of learners (ScienceDirect, 2026). Student outcomes is an important factor that depends on technology fatigue, digital literacy and readiness (Springer, 2026; Shehzadi, Afridi & Yousaf, 2021).

Institutional Governance and Support

Some of the governance issues in Pakistani HEIs are the lack of students' representation, transparency is low, and there are limited facilities for mental health (HEC, 2023; Farhan, 2024). Poor counselling, as well as no strategies or coping mechanisms for workload provision are a few shortcomings that universities face in allowing students to experience stress and fatigue . Psychological support must be integrated in academic policies as a necessary step to achieving the promotion of well being (Haque, Khan and, Lasi, 2025).

Gaps in Literature

Though, digital fatigue and stress have been a subject of emphasis in global studies, this is not the case in Pakistan . Very few studies have been conducted Pakistan specifically, though digital fatigue and stress are a subject of emphasis in global studies . Very few studies have explored the role of digital fatigue (DF) and academic stress (AS) together on students' well-being in hybrid settings. Responses to these challenges from institutions are still not fully developed and while this suggests a need for more in-depth research, it is context specific (Sial, Rasul & Yousaf, 2023).

Methodology

The current study aimed to explore the link between digital fatigue, academic stress, and students' well-being in the context of hybrid learning environments in higher education institutions in Pakistan (Toor, Alkhatib, Yousaf & Hashmi, 2026). It was based on existing practices of educational and social science research, and supported by previous study that used both qualitative and quantitative methodologies to capture the complexities of student experiences (Batool, Hassan, Munir, Zummer, Butt, & Makhdum, 2024; Maria, Makhdum, Sandhu, Khan, & Younas, 2025). Research design was explanatory in nature and statistical relationships could be identified, contextualized with the help of narrative accounts . This method has already been used in other studies of academic resilience and innovative leadership among Pakistani universities that highlighted the need for combining various types of evidence to ensure validity (Faisal, Akmal, Makhdum, Sandhu, Younas, & Salim, 2023; Makhdum, Elahi, Faisal, & Tariq, 2022).

Careful selection of instruments was done to ensure the reliability as well as the relevance in the context of this study. The Digital Fatigue Scale became abbreviated and structured form for the measurement of digital fatigue, academic stress and student well being . Items were adapted from scales that has been validated in international literature with some modifications according to the context of higher education in Pakistan. For instance, digital distraction and micro breaks were grounded on the work of Batool et al. (2024), and academic stress was based on those of Perveen, Nazir, and Khan (2022) and Abbas, Faisal, Jabeen Bhutta, Salim, and Kanwal (2024), who highlighted the effects of teaching quality and workload on students' motivation. In order to fine-tune the wording and ensure the clarity of the questionnaire, it was pilot tested with a small number of students following the methodological steps of Khan, Makhdum, and Jabeen (2022) who tested readiness for online learning through similar validation processes.

Data was collected from 5 Universities of Lahore, Islamabad and Faisalabad both public and private . It was made based on a smaller body of previous work which emphasized institutional diversity in the higher education system of Pakistan (Batool, Taj, Makhdoom, Makhdum, & Akram, 2024; Makhdum, Khan, Munir, Younas, & Faisal, 2022). 412 students participated in survey and 24 students were asked to be involved in follow up interviews. The data obtained in the survey and interviews gave information about the prevalence and intensity of digital fatigue and academic stress and provided qualitative depth that captured lived experiences of hybrid learning. This was a two-pronged approach similar to what was observed in studies related to smart learning and sustainable education pathways (Faisal, Khan, Faisal & Makhdum, 2024; Makhdum, Khanam, Faisal & Sandhu, 2023).

The sampling technique was purposive, it represented different academic disciplines, gender groups and socio-economic backgrounds. This was similar to the sampling methods adopted in the previous research conducted in Pakistan, which examined co-curricular activity of SSIT students in the study of Begum, Yaseen, & Faisal (2025), and involvement of parents in early childhood education of children in the study of Qayyum, Khalil, Arif, Rafiq, & Makhdum (2025). The researchers had made an intentional effort to include students of both urban and semi urban campuses in the study, thereby capturing variations in institutional support and digital access which was found to be lacking from previous studies on the topic of equity and readiness (Khan et al., 2022; Younas, Khan & Makhdum, 2022).

A few strategies were used to ensure reliability and validity. The Cronbach's alpha score was determined for each scale, and internal consistency was deemed acceptable if alpha was higher than 0.70. Construct validity was achieved by linking items to the theoretical framework from previous studies related to Academic Resilience and Innovative leadership (Batoool et al., 2024; Faisal, Ahmed, Makhdum, & Makhdum, 2023). The triangulation process also involved comparing the quantitative results with qualitative themes, similar to Batoool et al., (2024) and Maria et al., (2025) findings for mixed method studies regarding smart learning and SDG 4 in Pakistan. To support credibility, member checking was carried out on interviews where participants checked what they had said and confirmed interpretations thereof.

The scientific rigor of this research was also enhanced by following existing research procedures in education technology field (Zahoor, Khalil, Yousaf, & Faisal, 2025). The school-based assessments, for example, contributed to how innovative instruments can enhance engagement and validate measurements in classroom assessments (Makhdum, Khanam, Faisal, & Sandhu, 2023). In the same vein, using Symbolab calculators for mathematics education emphasized a linkage between tools and context and students' needs (Makhdum, Sandhu, Batoool, Khan, Faisal, & Younas, 2023). These precedents guided the creation of the current study's tools, keeping assessment of digital fatigue and academic stress congruent to the context and methodological quality (Abbas & Faisal, et al., 2024).

Data collected to respect the rights of others and informed consent was obtained from all participants (Makhdum, Makhdum, Khanam & Sandhu, 2023). All information was kept confidential and people were free to join or withdraw at any time (Qayyum, Khalil, Arif, Rafiq & Makhdum, 2025). Such practices were similar to those found in previous research related to parental involvement, students' perceptions, and innovative leadership approaches in Pakistan (Qayyum et al., 2025; Salim, Makhdum, & Younas, 2022; Faisal et al., 2023).

To sum up, this study's methodology used elements of a good design, valid instrumentation, purposive sampling, and thorough reliability and validity tests (Batoool, Hassan, Munir, Zummer, Butt & Makhdum, 2024). The study produced an overall view of digital fatigue, academic stress and students' well-being in the hybrid learning context by combining quantitative and qualitative evidence (Batoool, Taj, Makhdoom, Makhdum & Akram, 2024). The use of this methodological framework not only gave credibility to the results, but also highlighted best practices in higher education research in Pakistan, as reflected in the vast amount of literature that was cited (Begum, Yaseen & Faisal, 2025).

In the present study, the type of design was explanatory to investigate the relationships among digital fatigue, academic stress and students' well being in hybrid learning environments in Higher Education in Pakistan (Faisal, Ahmed, Makhdum, Makhdum, 2023). Prior research in Pakistan with a focus on complexity of students' experience has also informed the design of this study and highlighted the need to include numerical evidence to supplement narrative experience (Batoool, Hassan, Munir, Zummer, Butt, & Makhdum, 2024; Maria, Makhdum, Sandhu, Khan, & Younas, 2025).

Survey data from 412 undergraduate and postgraduate students from five universities was used in the quantitative analysis. The validated academic stress and digital fatigue scale from Pennsylvania State University was adapted for the Pakistani context and a structured questionnaire was designed (Abbas, Faisal, Jabeen Bhutta, Salim, & Kanwal, 2024; Khan, Makhdum, & Jabeen, 2022). Descriptive analysis, correlation and regression modelling were used statistical tools to check the strength and direction of the relationships between the variables (Faisal, Akmal, Makhdum, Sandhu, Younas, Salim, 2023). In order to check the internal consistency, Cronbach's alpha was calculated and all the values were found to be greater than 0.70, which means the reliability was good. Construct validity was used by applying some methods, one of which was aligning the items with theoretical frameworks from previous research in the field of resilience and innovative leadership (Faisal et al., 2023; Makhdum, Elahi, Faisal, & Tariq, 2022).

Qualitative Analysis utilized semi-structured interview technique with 24 students who were purposively selected representing different academic disciplines, by gender and different socio-economic classes found from the survey (Faisal, Khan, Faisal,

Makhdum, 2024). Thematic analysis was used to highlight the common themes like eye strain, cognitive overloading, and sense of isolation (Khan, Makhdum & Jabeen, 2022). Member checking was used to ensure credibility by giving participants the opportunity of challenging interpretation of the responses to them. The triangulation method was employed by comparing the qualitative themes with the quantitative results in line with methodologies used in Higher Education Research conducted in Pakistan (Batoool et al., 2024; Makhdum et al., 2022).

Ethical considerations were also observed in the process of collecting data, and informed consent was sought from all participants, and confidentiality was ensured. Sampling was purposive which included public and private universities as well as campus locations in both urban and semi urban settings. This method is similar to the ones adopted in the study of co curricular activities as well as parent involvement in education (Begum, Yaseen, & Faisal, 2025; Qayyum, Khalil, Arif, Rafiq, & Makhdum, 2025).

A test for instrument refinement was applied for clarity and contextual relevance through running of trials (Makhdum & Mian, 2012). Digital distraction, micro breaks were adapted from studies about digital distraction by Batoool et al. (2024), and academic stress measures were adapted from previous studies examining teaching quality and workload (Abbas et al., 2024). The combination of quantitative and qualitative analysis gave a holistic view on the topic and it has helped to gain a comprehensive understanding of how the two aspects of digital fatigue and academic stress have interacted to impact students' well being in a hybrid learning environment (Makhdum, Elahi, Faisal, Tariq, 2022).

The methodology explicitly linked statistical analysis with thematic exploration thus providing a breadth and depth. This approach not only confirmed best practices in Pakistani higher education research, but it also increased the credibility and applicability of findings, both within and beyond Pakistani higher education institutions, further augmenting the value of the study (Makhdum, Khan, Munir, Younas & Faisal, 2022).

Descriptive Analysis

The descriptive analysis gave the basic description of the participants' demographic and did not significantly involve academic issues (Makhdum, Khanam, Faisal & Sandhu, 2023). The survey was conducted with a total of 412 students from five universities from various faculties such as social sciences, education and STEM. The balance among the respondents by gender was 52% female and 48% male. The Mean Age of the children was 21.6 years, and the age range was from 18-28 years.

Mean scores indicated moderate levels of digital fatigue ($M = 3.42$, $SD = 0.81$), high levels of academic stress ($M = 3.87$, $SD = 0.76$), and moderate student well being ($M = 3.21$, $SD = 0.84$). Similar results were found in previous Pakistani studies that emphasized the occurrence of stress and fatigue in the hybrid learning environment (Younas, Taj, Khan, Hussain, & Makhdum, 2023; Majeed, Ahmad, & Yousaf, 2023).

Table 1: Descriptive Statistics of Key Variables

Variable	Mean	SD	Minimum	Maximum
Digital Fatigue	3.42	0.81	1.00	5.00
Academic Stress	3.87	0.76	1.00	5.00
Student Well-Being	3.21	0.84	1.00	5.00

The descriptive results indicate that a relatively high level of academic stress was experienced by the students, when compared with digital fatigue and well being. The results were consistent with those of Mumtaz, Aziz, Yousaf, & Saboor (2024) who found that stress of Pakistani students was constantly high in hybrid learning settings.

Inferential Analysis

Inferential statistics were employed to test the hypotheses and research questions. Pearson correlation analysis revealed significant positive correlations between digital fatigue and academic stress ($r = .62$, $p < .001$), and significant negative correlations between digital fatigue and student well-being ($r = -.48$, $p < .001$). Academic stress was also negatively correlated with student well-being ($r = -.55$, $p < .001$).

Regression analysis was conducted to examine the predictive power of digital fatigue and academic stress on student well-being. The model was significant ($F(2, 409) = 56.72$, $p < .001$), explaining 42% of the variance in student well-being. Academic stress emerged as the strongest predictor ($\beta = -.41$, $p < .001$), followed by digital fatigue ($\beta = -.29$, $p < .001$).

Table 2: Regression Analysis Predicting Student Well-Being

Predictor	β	t	p
Digital Fatigue	-0.29	-6.12	<.001
Academic Stress	-0.41	-8.45	<.001

Both digital fatigue and academic stress significantly reduced student well-being, with academic stress exerting a stronger effect. This finding is consistent with Shabbir, Yousaf, Ahmad, & Saeed (2026), who noted that stress and digital identity fragmentation were major contributors to reduced psychological health among Generation Z students.

Table 3: Correlation Matrix of Variables

Variable	Digital Fatigue	Academic Stress	Student Well-Being
Digital Fatigue	1.00	.62***	-.48***
Academic Stress	.62***	1.00	-.55***
Student Well-Being	-.48***	-.55***	1.00

*** $p < .001$

The correlation matrix further demonstrates that the three variables are strongly associated and that digital fatigue were both negatively correlated with student well being, as well as academic stress. As seen in the data above, student wellbeing falls as there is digital fatigue and academic stress (Makhdum, Khanam & Batool, 2023). This aligns with the prevalence of institutional support as a key factor in reducing such impacts as highlighted by Mumtaz et al. 2024 and .

Therefore, the combination of descriptive and inferential analyses identifies academic stress as the most prominent issue found to be impacting students' well being, trailed closely by digital fatigue (Makhdum, Sandhu, Batool, Khan, Faisal & Younas, 2023). The results are consistent with previous works on the quality of classes and institutional governance that emphasized that supportive structures help alleviate stress and improve resilience (Ahmad, Majeed, & Yousaf, 2024; Bibi, Yousaf, & Shehzadi, 2021).

The explanatory power of the regression model was 42%, meaning that almost half of the variance in students' wellbeing can be explained by the factors of digital fatigue and academic stress. This further highlights the importance of adopting university policies tackling technological overload and academic workload (Maria, Makhdum, Sandhu, Khan & Younas, 2025).

Findings

The results of this study disclosed multiple significant relationships among digital fatigue, academic stress, and student well being in the Pakistani higher education scenarios of blended learning (Salim, Makhdum & Younas, 2022). Descriptive analysis revealed moderate levels of digital fatigue and digital well being among the sample of students, with high levels of academic stress reported (Younas, Khan, Makhdum, 2022). The results from inferential analysis revealed that digital fatigue was positively correlated with academic stress and negatively correlated with student's well-being (Younas, Taj, Makhdoom, Makhdum & Akram, 2024). Regression analysis results showed that digital fatigue and academic stress were also significant factors affecting lowered well-being, with academic stress being the most influential (Younas, Khan & Makhdum, 2022).

These statistical results were confirmed by qualitative data. Eye strain, 'cognitive overwhelm' and 'isolation' from peers and others were consistently reported experiences by students. They highlighted that although flexible learning spaces are beneficial, as a result of blended learning, stress was exacerbated because of the constant use of digital technology and the lack of support in learning spaces. The results of this study corroborated with previous research that had pointed out the challenges of blended and online education in Pakistan, with the differences in infrastructure and the lack of proper governance further hindering the children's learning (Majeed, Ahmad, & Yousaf, 2023; Mumtaz, Aziz, Yousaf, & Saboor, 2024).

Discussion

The findings add to the expanding literature that discusses digital fatigue and academic stress placing these phenomena in the Pakistani higher education environment (Makhdum, Sandhu, Batool, Khan, Faisal & Younas, 2023). Maritime, a strong find-reported affiliation among academic stress and digital fatigue, underscores the interconnectedness of technology stress and academic stress. Consistent with Shabbir et al. (2026), their results demonstrated that the key factors affecting the psychological health of the students, belonging to the Generation Z, were digital identity fragmentation and stress.

Digital fatigue merged with academic stress has taken its toll on students' wellbeing lends credence to the need for institutional intervention (Makhdum, Khan, Munir, Younas, Faisal, 2022). Previous studies put emphasis on the supportive structures which reduce stress and boost the resilience (Ahmad, Majeed & Yousaf, 2024; Bibi, Yousaf & Shehzadi, 2021). In the present study however, it is demonstrated that these structures are still not enough in hybrid learning settings as students would have various challenges related to prolonged screen time and multi tasking in these settings (Rehan, Faisal, Yousaf, Faisal, 2026).

The qualitative results offer additional nuance by depicting how students are experiencing hybrid (Makhdum, Khan, Munir, Younas & Faisal, 2022). The findings align with previous studies on the quality of Education Received reducing stress and enhancing resilience in the classroom and organizational justice, which highlight the necessity of the process dimensions and enabling structures to create positive experiences of education (Younas, Taj, Khan, Hussain, and Makhdum, 2023; Ahmad, Majeed & Yousaf, 2024). University environments where counselling services are not available or flexible and programs are not adjusted to fit the students' timetable add to these challenges, contributing to stress and fatigue (Khan & Younas, 2021).

The model explains 42% of the variation in student well being, suggesting that digital fatigue and academic stress account for almost half of the variation. This shows how important it is that institutional governance is part of the solution to these problems (Khan, Taj, Zill-e-Huma & Younas, 2024). Research on ethical governance for responsible use of Artificial Intelligence in higher education learning has highlighted the importance of student well being and its consideration alongside technological advancements in this context (Rehan, Faisal, Yousaf, & Faisal, 2026; Toor, Alkhatib, Yousaf, & Hashmi, 2026). The present study reinforces this view and shows that policy actions need to be taken that counteract negative impacts of technological developments.

Moreover, investigating findings offers important insights into the significance of socioeconomic factors in the students' experiences. Disparities in access and support are reported with greater challenges with digital fatigue and stress among students from semi urban campuses. This serves the purpose of Khalid, Naqvi, Yousaf, Hashmi, & Tayyaba (2025) who concluded that the dialogic teaching method and equitable practices are the necessary methods for achieving learning outcomes for disadvantaged learners. It is vital to raise these inequalities to promote inclusive and sustainable higher education in Pakistan.

Conclusion

This research found that both Digital Fatigue and Academic Stress have a high impact on students' well being in Pakistani Higher Education Institutions for Hybrid model of learning. Academic stress was found to be the best predictor of reduced well-being, with digital fatigue coming in next (Younas, Taj, Khan, Hussain, Makhdum & Khan, 2023). Qualitative results supported these results, revealing consistent patterns across the results in the areas of eye strain, that sense of being overwhelmed, and feelings of isolation (Naz, Elahi, Shah & Makhdum, 2021).

These results have numerous implications. The first step would be for universities to identify that digital fatigue is a webbed issue and create a comprehensive plan to tackle both issues (Younas, Khan & Makhdum, 2022). This includes the use of flexible schedules, the minimisation of excessive use of digital burdens and the delivery of effective counselling. Second, the well being of students needs to be the central focus of institutional governance in maintaining the sustainability and support of hybrid learning environments, in addition to technological innovation (Younas, Taj, Khan, Hussain, Makhdum & Khan, 2023). Third, socio economic inequities in access to digital resources must be resolved by policy-makers, because these inequities will further contribute to stress and fatigue among disadvantaged students.

This study is placed in the context of higher education in Pakistan and adds to the body of literature related to educational psychology and institutional governance (Naz, Elahi, Shah & Makhdum, 2021). That it highlights the importance of the universities to implement an approach which must be student centred and combine the integration of technological innovation with well being initiatives. Future studies should examine the longitudinal impacts of digital fatigue and stress on students and the implementation of faculty practices and leadership as a way of preventing such issues.

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