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Exploring Teachers' and Students' Perceptions of Digital Well-being and Screen-Time Literacy among Secondary School Students

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Abstract
This qualitative study explores the perceptions of digital well-being and screen-time literacy among secondary school students and teachers in Pakistan. The research specifically investigates how students perceive and manage their screen-time, and identifies the similarities and differences between teachers' and students' views on digital well-being. Using a semi-structured interview format, data were collected from a purposive sample of 15 participants (10 secondary school students and 15 teachers) from public and private schools in Narowal. Thematic analysis was used to interpret the data, supported by Bandura's Social Cognitive Theory, particularly focusing on the constructs of observational learning, self-regulation, and reciprocal determinism. Three major themes emerged: (1) Understanding of Digital Well-being, (2) Screen-Time Management Practices, and (3) Role of Environment and Guidance. Sub-themes revealed that while students often associated digital well-being with entertainment and distraction, teachers emphasized self-discipline and educational use. Both groups acknowledged a lack of formal education or policy regarding screen-time awareness. Notably, students shared personal struggles such as digital fatigue and decreased academic focus, while teachers highlighted the absence of institutional frameworks and parental involvement in guiding healthy digital habits. Findings suggest that although both teachers and students recognize the significance of digital well-being, their approaches and understandings vary considerably. The data support the need for curriculum integration, teacher training, parental engagement, and school-level policy reforms. This research contributes to the growing body of literature on digital citizenship and

calls for multi-stakeholder collaboration to foster responsible and balanced screen use in educational settings.

Keywords: Digital Well-being, Screen-Time Literacy, Secondary School Students, Teachers' Perceptions, Qualitative Study, Social Cognitive Theory, Pakistan, Educational Technology, Student Behavior, Policy Recommendations.

1. Introduction

In the contemporary age the use of digital technology has become a normal part of students' everyday lives. Whether it's for online classes, doing homework, connecting with friends, or just relaxing with entertainment, students now spend more time on screens than ever before. While technology has brought many benefits, it has also raised concerns about its impact on students' physical and mental health, social behavior, and academic focus. This has led educators and researchers to pay closer attention to concepts like digital well-being and screen-time literacy (Burns & Gottschalk, 2023).

Digital well-being is about maintaining a healthy balance in using technology in a way that supports our emotional, mental, and physical well-being. On the other hand, screen-time literacy refers to knowing how to use screens responsibly understanding when, how much, and what kind of screen time is beneficial or harmful. As students navigate their daily lives with constant access to screens, understanding these two areas has become more important than ever (Orben & Przybylski, 2020). Teachers, as key figures in students' lives, play an important role in helping students use technology wisely. Their views, practices, and awareness about digital well-being can significantly influence how students behave online. At the same time, students may have their own understanding of what it means to stay healthy while being constantly connected. However, there is often a gap between what teachers expect and what students experience (Livingstone & Blum-Ross, 2020). Exploring both perspectives can help bridge that gap. This study is designed to explore and compare how both teachers and students in secondary schools perceive digital well-being and screen-time literacy. The aim is not just to gather information, but to offer meaningful recommendations that can improve digital practices in schools and support students' mental and academic well-being in a tech-heavy world.

1.1 Research Objectives

1) To explore secondary school teachers' perceptions, practices, and understanding of digital well-being and screen-time literacy.
2) To understand how students perceive digital well-being and how they manage screen-time in their daily routines.
3) To compare and analyze the differences and similarities between teachers' and students' perceptions and experiences related to digital well-being and screen-time.

1.2 Research Questions

1) What are the perceptions of secondary school teachers regarding digital well-being and screen-time literacy?
2) How do secondary school students perceive digital well-being and manage their screen-time?
3) What similarities or differences exist between teachers' and students' views on digital well-being and healthy screen-time habits?

1.3 Problem Statement

Technology has become a major part of learning and communication in secondary education. However, the increased screen exposure among students has raised concerns about physical tiredness, emotional stress, poor sleep patterns, and reduced academic performance. While efforts are being made to address these challenges, there is still a lack of detailed understanding about how both teachers and students view digital well-being and screen-time management. Without knowing what both groups think and experience, it's hard to create useful strategies or policies. Therefore, it is important to explore these perceptions in depth to guide better practices and interventions in schools.

1.4 Rationale of the Study

In the post-pandemic world, screen use among students has significantly increased due to the shift toward online learning. While this shift has opened new opportunities for learning, it has also brought risks related to overuse, digital distractions, and declining mental health. Teachers are often expected to manage these challenges, yet they may lack the training or awareness to guide students properly. Meanwhile, students may not even realize the long-term effects of excessive screen-time. This study is important because it tries to understand the actual experiences and beliefs of both teachers and students. The results will help school leaders, curriculum developers, and policymakers to develop balanced programs that promote healthier digital behavior among students.

1.5 Significance of the Study

This research is significant because it brings together two key perspectives those of teachers and students on a topic that affects the health, learning, and future of students. By understanding both sides, the study can provide clear insights into the challenges and gaps that exist in schools when it comes to digital well-being. The findings can be used to improve teacher training, develop student awareness programs, and guide parents in supporting healthy screen habits at home. It also contributes to the growing research around the mental health impacts of digital technology in the school environment.

1.6 Limitations of the Study

Like all research, this study also has a few limitations. First, it focuses on a selected number of secondary schools, which means the results may not apply to all schools across the country. Second, the study relies on participants' self-reported opinions, which can sometimes be biased or incomplete. Also, the levels of digital awareness may vary among participants due to different backgrounds and exposure, which could influence their answers. Lastly, due to time and resource limitations, the study may not include a very large or diverse sample.

2. Literature Review

The increasing integration of digital technologies in educational settings has led to both unprecedented learning opportunities and significant challenges, particularly concerning students' mental health, behavioral regulation, and screen-time dependency (Burns & Gottschalk, 2023). With students now spending substantial time on digital platforms for educational and recreational purposes, issues related to digital well-being and screen-time literacy have gained considerable scholarly attention (Livingstone et al., 2021). However, while a wide body of literature explores digital inclusion and online learning, relatively less research

focuses on how both teachers and students perceive digital well-being and screen-time management, especially within secondary school contexts.

2.2. Digital Well-being: Concept and Relevance

Digital well-being broadly refers to the capacity to lead a healthy and balanced life in relation to digital technology usage (Vuorre et al., 2021). According to the World Health Organization (2022), digital well-being is linked not only to the quantity of screen-time but also to its quality and the user's psychological engagement with digital devices. Recent studies emphasize that unmanaged or excessive screen-time can result in disrupted sleep, anxiety, social withdrawal, and impaired academic focus among adolescents (Orben et al., 2020; Twenge et al., 2022). Teachers, meanwhile, are expected to model and guide responsible digital practices. Yet, many report feeling ill-equipped to monitor or support students' digital well-being due to a lack of institutional training or awareness (Green & Sefton-Green, 2022). While digital tools are integrated into curriculum delivery, digital health is rarely embedded as a core theme within the teaching framework.

2.3. Screen-Time Literacy: Definition and Educational Implications

Screen-time literacy goes beyond simply reducing screen exposure it involves critical awareness of screen usage patterns, purpose, and timing (Huang et al., 2023). It includes students' ability to make informed decisions about their digital consumption, identify digital fatigue, and self-regulate technology usage. Scholars like Livingstone and Blum-Ross (2020) argue that screen-time literacy is increasingly necessary for digital natives who struggle to distinguish productive engagement from distraction. In a study by Beetham and Sharpe (2021), it was found that while students are highly competent in using devices for social purposes, many lack self-regulation and reflection skills to manage screen-time effectively. Similarly, teachers often acknowledge the problem of digital distraction in classrooms but do not consistently implement structured interventions to promote screen discipline.

2.4. Teachers' Role and Perceptions

Teachers' understanding of digital well-being plays a crucial role in how they support or neglect students' screen-related challenges. A study by Selwyn et al. (2020) noted that many educators feel torn between the demands of digital integration and their concerns over screen dependency. Teachers reported observing digital fatigue, lower attention spans, and reduced physical activity in students, yet lacked standardized protocols to address these outcomes.Another concern is the absence of clear policies or professional development focused on equipping teachers with knowledge about digital wellness (Green & Sefton-Green, 2022). In contrast, a few progressive schools have initiated digital detox programs or embedded well-being modules, but such cases remain isolated and under-researched.

2.5. Students' Experiences and Attitudes

Students often possess a contradictory relationship with digital devices. While recognizing the value of screens for learning and connection, they also report experiencing stress, anxiety, and pressure from constant connectivity (Twenge & Campbell, 2022). According to a 2023 survey by UNICEF, over 60% of adolescents in digitally advanced regions felt that their screen-time was excessive, but only a minority took steps to reduce it voluntarily.The growing presence of digital citizenship and media literacy education, students rarely receive guidance on screen-time

management or emotional regulation related to digital use (OECD, 2023). There remains a lack of student-centered strategies to promote reflection, mindfulness, or resilience in navigating the digital world.

The broader themes of digital learning, e-safety, and screen dependency have been widely studied, existing literature often examines either teacher perspectives or student experiences in isolation. Very few studies provide a comparative, qualitative exploration of both perspectives within the same educational setting. Moreover, most available research is focused on higher education or primary school contexts, whereas secondary students who are at a critical developmental stage receive limited focused attention (Orben & Przybylski, 2020).There is a scarcity of localized research from developing countries, including Pakistan, where digital transitions are occurring rapidly, often without adequate support systems. This study seeks to fill this gap by exploring how both teachers and secondary school students in Pakistan perceive and manage digital well-being and screen-time literacy, and how their views can inform culturally relevant interventions.

2.6 Theoretical Framework

This research draws on Bandura's Social Cognitive Theory (SCT), which emphasizes the interaction between personal factors, behavior, and environmental influences. According to SCT, individuals learn not only through direct experiences but also by observing others and by reflecting on the outcomes of their behaviors. In the context of this study, students' screen-time habits and digital well-being are influenced by:

a) Personal beliefs (e.g., awareness of digital harm)
b) Behavioral practices (e.g., screen-time routines)
c) Social modeling (e.g., teachers' guidance and peer influence)

This theory is particularly useful for understanding how students develop screen-related behaviors in classroom environments, and how teachers act as role models or influencers in shaping these habits.

A balanced state of physical, mental, and emotional health in relation to digital technology usage. Awareness and ability to manage screen exposure effectively for academic and personal purposes. The subjective understanding or belief about a certain phenomenon based on experience or exposure. Alternative frameworks like Media Ecology Theory or Uses and Gratification Theory were considered, but SCT offers a broader behavioral lens that aligns well with the educational and developmental goals of the study. The literature reviewed above shows a growing recognition of the importance of digital well-being and screen-time literacy in educational discourse. However, existing studies are often fragmented and lack a comprehensive understanding of both teachers' and students' perspectives in the same context. There is a need for qualitative, context-sensitive research that explores these perceptions in detail and offers practical solutions tailored to the realities of modern secondary education. By focusing on the Pakistani secondary school context, this study aims to address this gap and contribute meaningful insights to the global conversation on youth digital health.

3. Research Methodology

3.1 Research Design

The present study employed a qualitative exploratory research design to investigate the perceptions of teachers and students regarding digital well-being and screen-time literacy in the context of secondary education. This design was deemed appropriate as it facilitated a deep understanding of the subjective experiences, meanings, and interpretations that individuals assign to their digital behaviors and attitudes (Creswell & Poth, 2018). Grounded in the interpretivist paradigm, the study aimed to capture rich, context-specific insights that cannot be adequately understood through quantitative measurements alone.

3.2 Participants and Sampling Procedure

A purposive sampling strategy was utilized to select participants who were directly engaged with the phenomenon under investigation (Etikan, Musa, & Alkassim, 2016). The study comprised a total of 30 participants, including 15 secondary school teachers and 15 students aged between 13 and 17 years, drawn from both public and private institutions in Lahore and Narowal, Pakistan. The inclusion criteria required that all teacher participants be actively involved in teaching digital or core academic subjects, and student participants must have had regular access to digital devices for educational purposes. This sampling approach ensured maximum variation in terms of gender, school type, and digital exposure, allowing the researcher to gather diverse perspectives on the topic.

3.3 Data Collection Methods

Data were collected using semi-structured interviews, which provided a balance between guided questioning and open-ended exploration. Two separate interview protocols were designed: one for teachers and one for students. These interview guides consisted of broad, open-ended questions related to participants' understanding of digital well-being, screen-time behaviors, institutional policies, and challenges faced in managing technology use. Each interview was conducted face-to-face, in a quiet setting within school premises, to ensure participant comfort and confidentiality. The interviews lasted approximately 30 to 45 minutes each. All sessions were audio-recorded (with informed consent) and subsequently transcribed verbatim for rigorous analysis. In addition to interview data, relevant institutional documents such as school ICT policies, digital usage guidelines, and student handbooks were reviewed to triangulate findings and provide contextual depth.

3.4 Data Analysis

The data were analyzed using thematic analysis, following the six-phase process outlined by Braun and Clarke (2006). This included:

1. Familiarization with the data,
2. Generation of initial codes,
3. Identification of emerging themes,
4. Reviewing and refining themes,
5. Defining and naming themes,
6. Writing the report.

Manual coding was carried out to allow full immersion in the data. Coding consistency was enhanced through peer debriefing and reflexive journaling. Patterns and themes were identified

across teacher and student responses, allowing for comparative insights into shared concerns, differences in perception, and context-specific implications.

3.5 Ethical Considerations

All ethical standards associated with qualitative educational research were upheld throughout the study. Ethical clearance was obtained from the host university's research ethics committee. Informed consent was sought from all teacher participants, while for students, written parental consent and student assent were obtained. Participants were assured of anonymity, confidentiality, and the voluntary nature of their participation, including the right to withdraw at any stage without consequence. This study's qualitative methodology characterized by purposive sampling, semi-structured interviews, thematic analysis, and ethical rigor was well-suited to explore the complex and socially embedded perceptions of digital well-being and screen-time literacy among teachers and students. The approach provided valuable insights into how digital behaviors are shaped, understood, and regulated within secondary school settings in Pakistan, thereby contributing meaningfully to an under-researched area of educational inquiry.

4.Data Analysis and findings

Researcher conducted a thematic analysis to explore and interpret the rich qualitative data collected from semi-structured interviews with secondary school teachers and students. The aim was to deeply understand their perceptions regarding digital well-being and screen-time literacy in the context of increasing digital engagement among adolescents. The thematic analysis approach was selected for its flexibility and effectiveness in identifying patterns, shared meanings, and nuanced perspectives across qualitative datasets (Braun & Clarke, 2022). The data were transcribed verbatim and systematically coded to ensure authenticity and credibility. Through repeated readings and coding, the data were organized into key themes and sub-themes that reflect both individual experiences and broader trends within the participant groups. This approach allowed for a meaningful interpretation of both converging and diverging views between students and teachers. Three core research questions guided the analysis:

1) What are the perceptions of secondary school teachers regarding digital well-being and screen-time literacy?
2) How do secondary school students perceive digital well-being and manage their screen-time?
3) What similarities or differences exist between teachers' and students' views on digital well-being and healthy screen-time habits?

Each question was addressed by presenting the emerging themes supported by direct quotations from participants. This method not only preserved the authenticity of the participants' voices but also ensured that the analysis was grounded in real-life experiences. By highlighting their views in this way, the analysis contributes valuable insights into the challenges and opportunities surrounding digital well-being in educational environments. This analysis ultimately seeks to inform teachers, parents, and policymakers about the practical implications of digital well-being, screen-time awareness, and the need for targeted interventions to support students in the digital age

4.1 Perceptions of secondary school teachers regarding digital well-being and screen-time literacy

Theme 1: Awareness of Digital Well-being

Many teachers expressed a basic understanding of digital well-being, linking it with physical and mental health in relation to digital device usage.

Sub-theme 1.1: Health Impacts of Excessive Screen Time

Teachers acknowledged that excessive screen use among students has adverse effects on health, including sleep disturbance, poor posture, and eyesight issues.

"Some of my students come to class tired or distracted because they were on their phones all night. It clearly affects their academic focus." Teacher A

"We see complaints about headaches and eye strain. These are real issues among teenagers using screens excessively." Teacher E

Sub-theme 1.2: Emotional and Social Well-being

Teachers noted that constant screen exposure leads to social isolation and increased anxiety among students.

"Students are not interacting with each other like before. Even during breaks, they're just staring at screens." Teacher G

"I've seen children becoming more anxious or insecure due to content on social media." Teacher C

Theme 2: Understanding of Screen-Time Literacy

Teachers had varied levels of understanding of screen-time literacy, with some associating it with time management and others with critical engagement with content.

Sub-theme 2.1: Time Management Challenges

Most teachers pointed out that students struggle to manage their screen time effectively.

"They lack the discipline to use devices purposefully. Even during study time, they keep switching to games or YouTube." Teacher F

Sub-theme 2.2: Need for Curriculum Integration

Teachers strongly emphasized the need to integrate screen-time management into the school curriculum.

"We teach them about science and history, but not how to responsibly use the technology they interact with every day." Teacher B

Theme 3: Role of Teachers and Parents

Teachers acknowledged their shared responsibility with parents in guiding students towards healthy digital practices.

Sub-theme 3.1: Lack of Guidance Resources

Many teachers felt under-equipped to provide effective digital well-being guidance.

"There's no proper training for teachers on this. We need workshops or materials to help us support students better." Teacher H

Sub-theme 3.2: Collaboration with Parents

Teachers expressed the need for greater parental involvement in managing students' screen habits.

"We try our best in school, but if parents allow unrestricted access at home, it undoes everything." Teacher J

Table 1: Summary of RQ1 Themes

Theme	Sub-Themes	Key Insights
Awareness of Digital Well-being	Health Impacts, Emotional Effects	Teachers recognize screen overuse impacts physical and emotional health
Understanding of Screen-Time Literacy	Time Management, Curriculum Need	Students lack time discipline; need educational integration
Role of Teachers and Parents	Lack of Resources, Need for Collaboration	Teachers need training; parents should share responsibility

The data indicates that secondary school teachers are aware of the risks associated with poor digital well-being and inadequate screen-time literacy. However, they face challenges due to lack of structured training, institutional support, and parental collaboration. The findings suggest an urgent need to include digital literacy and well-being in school curricula and teacher training programs to equip students with the necessary skills to navigate the digital age responsibly.

4.2 Secondary School Students Perceive Digital Well-Being And Manage Their Screen-Time

Theme 1: Screens as Essential for Learning *and* Connection

Students did not talk about screen-time only as "minutes used." Instead, they differentiated school-required, self-study, and social/entertainment use. They saw digital access as *necessary* for academic survival and social belonging.

Sub-theme 1.1: Academic Necessity

"Most of our assignments come on WhatsApp or Google Classroom, so I have to check my phone even if I don't want to." Student S2

"If I stay offline, I miss deadlines. Teachers say, 'It was posted last night.' So I keep my data on." Student S9

Sub-theme 1.2: Social Lifeline

"All my friends are in group chats. If I don't reply, they think I'm ignoring them." Student S5

"After tuition I relax with games or Instagram; that's how we talk now." Student S12

For many, *disconnecting* risks academic penalty or social exclusion. This structural pressure complicates screen-time reduction efforts.

Theme 2: Awareness of Digital Strain but Gaps in Self-Regulation

Students recognized downsides tired eyes, late sleep, and stress but reported difficulty stopping once engaged.

Sub-theme 2.1: Physical & Cognitive Fatigue

"My eyes burn after night scrolling, but still I keep watching reels." Student S4

"Classes online are okay, but after that I just feel my head is full." Student S10

Sub-theme 2.2: Sleep & Routine Disruption

"I say I'll check messages for five minutes. Then it's midnight." Student S1

"I sleep with the phone next to me because teachers send PDFs late." Student S6

Sub-theme 2.3: Emotional Spillover

"When I see other students posting marks or trophies, I feel pressure and stay longer online comparing." Student S 4

Students were *aware* of overuse effects but lacked strategies, boundaries, or consistent adult guidance to translate awareness into healthier habits.

Theme 3: Contextual Controls and Coping Strategies

Students described a mix of external controls (parents/schools) and self-developed tactics to manage screen-time, though implementation was uneven.

Sub-theme 3.1: Parental Rules (Patchy & Negotiated)

"My mother takes my phone at 10 pm, but during exams I bargain for extra time because of notes." Student S3

"At home they say 'no phone at dinner,' but everyone uses it including my father." Student S8

Sub-theme 3.2: School-Level Restrictions

"Phones are not allowed in class, but we still use them in breaks to download slides." Student S10

Sub-theme 3.3: Self-Regulation Attempts

Some students experimented with timers, app blockers, or scheduling "offline study blocks."

"I set a two-hour limit for TikTok; when it locks I stop… mostly." Student S14

"I put my phone in another room when revising. Works only if my friends don't keep calling" Student S7

Regulation is situational, negotiated, and often undermined by inconsistent adult modeling, academic demands, and peer messaging.

Theme 4: Ambivalence, Trade-offs, and Developing Digital Judgment

Students expressed *mixed feelings* valuing digital access yet worrying about health and distraction. They wanted guidance, not blanket bans.

Sub-theme 4.1: "Good vs. Waste" Distinction

"If I watch Khan Academy that is good screen-time; if I scroll funny clips before exam, that is waste." Student S7

Sub-theme 4.2: Desire for Skills, Not Punishment

"Instead of just saying 'less phone,' teachers should show us how to plan study apps and break times." **Student S9**

Sub-theme 4.3: Peer Accountability

"We made a study group if someone sends memes during study hour we mute him." Student S5

Students were beginning to form qualitative judgments about types of use. This emerging evaluative language ("good/waste," "study vs scroll") may be leveraged in digital well-being programs.

Table 2: Thematic Summary RQ2

Theme	Sub-Themes	What Students Said	Implication for Practice
Screens as Essential for Learning & Connection	Academic Necessity; Social Lifeline	"Have to check assignments"; "Friends all online"	Policy changes must account for mandatory digital tasks.
Awareness of Digital Strain but Limited Self-Regulation	Fatigue; Sleep Disruption; Emotional Spillover	"Eyes burn"; "It's midnight before I stop"; "Online comparison stress"	Teach self-monitoring , coping for emotional triggers.
Contextual Controls & Coping Strategies	Parental Rules; School Restrictions; Self-Regulation Attempts	"Mother takes phone"; "Phones banned but used in breaks"; "App limits"	Multi-stakeholder, consistent boundaries needed.
Ambivalence & Developing Digital Judgment	Good vs Waste; Skills Not Punishment; Peer Accountability	"Khan Academy good, reels waste"; "Show us how to plan time"	Build curriculum around qualitative use categories peer-led norms.

Students perceived digital well-being as a balance between *necessary* academic connectivity and the *risk* of over-exposure leading to fatigue, stress, and lost sleep. Screen-time management was understood less as counting minutes and more as *intentional use* distinguishing productive academic engagement from distracting or emotionally draining scrolling. Management efforts were fragmented: some external (parental confiscation, school bans), others internal (timers, self-imposed study blocks), but none fully addressed the structural pressures of always-on academic communication. Students expressed a clear desire for guided, skills-based education in planning digital routines suggesting that school-led digital well-being programs could build on their emerging "good vs waste" distinctions.

4.3 Similarities or Differences Exist Between Teachers' and Students' Views on Digital Well-Being and Healthy Screen-Time Habits

Theme 1: Awareness of Digital Well-being

Sub-theme 1.1: Shared Understanding

Both students and teachers demonstrated a basic awareness of the term "digital well-being." Teachers primarily associated it with balance and responsibility, while students emphasized the impact of digital use on their mental and physical health.

Teacher's View:

"Digital well-being means keeping students safe from overexposure to screens, especially during study hours. We try to guide them, but we need more structured policies." (Teacher 3)

Student's View:

"For me, it's about not using my phone too much at night because I start feeling anxious and can't sleep properly." (Student 5)

While both groups understood the concept, teachers viewed it more as a disciplinary or protective issue, while students internalized it in terms of personal health effects.

Theme 2: Screen-Time Management Practices

Sub-theme 2.1: Perceived Control

Students felt they had moderate control over their screen-time, though many admitted difficulty in self-regulation, especially with social media. Teachers, on the other hand, felt students lacked the maturity to self-regulate and advocated for parental and institutional intervention.

Student's View:

"I use Instagram a lot, especially after classes. Sometimes I lose track of time, but I try to limit it during exams." (Student 3)

Teacher's View:

"They say they manage their time, but we see them distracted even in classrooms. Screen-time literacy needs to be part of the curriculum." (Teacher 1)

There is a gap between students' perceived control and teachers' observations of actual student behavior.

Theme 3: Role of Education in Promoting Digital Health

Sub-theme 3.1: Educational Responsibility

Both groups agreed that schools should play a role in promoting digital well-being, though their focus differed.

Teacher's View:

"We need formal training for both teachers and students. This is not just a parental job anymore; it's part of their education now." (Teacher 5)

Student's View:

"We learn about health in biology, but no one really talks about how using phones all day affects us. A session on this would be helpful." (Student 2)

This shows a shared desire for institutional support, though there is a lack of implementation or formal education on the topic. Overall, the analysis reveals both convergence and divergence in perceptions. While both teachers and students recognize the importance of digital well-being and the need for education on screen-time management, their perspectives differ on implementation and responsibility. Teachers largely view screen-time as an external issue to be managed through rules and guidance, whereas students see it as a personal challenge linked with lifestyle and peer influence. These findings highlight the need for a collaborative, school-wide approach that integrates student-centered education with teacher support and policy-level guidance.

5. Discussion

The current study set out to explore and analyze the perceptions of secondary school teachers and students regarding digital well-being and screen-time literacy. Drawing on qualitative data gathered through semi-structured interviews, the findings were thematically analyzed to generate meaningful insights into how digital habits, awareness, and health-conscious behaviors are understood and managed within the school context. The discussion below synthesizes the themes and sub-themes identified in the data analysis, contextualizing them within the broader academic discourse and theoretical assumptions underpinning the study.

5.1 Understanding of Digital Well-being and Literacy: Shared Awareness but Uneven Depth

One of the key themes emerging from the data was the shared awareness of digital well-being between both teachers and students. Teachers generally defined digital well-being in terms of balance and responsible technology use, while students associated it more with the emotional and physical effects of prolonged screen exposure. This reflects a common ground in conceptual understanding, although the depth and application of this understanding varied. As one teacher remarked, *"Digital well-being is more than screen breaks. It's about making conscious decisions about what, how, and when to use devices."* This perspective aligns with the conceptual framework of digital self-regulation grounded in the Social Cognitive Theory (Bandura, 1986), which highlights personal agency and environmental influences in behavioral outcomes. However, students demonstrated a less structured understanding. One student stated, *"I just feel annoyed or tired sometimes after long hours, but I don't really think about why."* This illustrates a gap in metacognitive awareness, a concept emphasized in screen-time literacy models (Livingstone & Helsper, 2007), indicating a need for educational interventions that foster reflective digital habits.

5.2 Managing Screen-Time: Varied Strategies and Contextual Limitations

Another important finding was the diverse strategies adopted by both groups to manage screen-time. Teachers reported setting classroom-based digital limits and promoting physical activities, while students described using alarms, timers, or parental controls at home. These efforts, though commendable, were often limited by external constraints such as curriculum demands or home environments. As one teacher observed, *"We encourage less screen time, but ironically, we assign work that keeps them glued to screens."* This contradiction supports the findings of earlier studies (Hooft Graafland, 2018) which argue that institutional structures sometimes undermine screen-time policies. The Ecological Systems Theory (Bronfenbrenner, 1979) provides a valuable lens here, as it situates the individual within a layered context of school, family, and societal influences. Students, in turn, noted that peer influence and digital entertainment often overpowered their intention to limit screen use. As one student put it, *"Even if I want to stop using my phone, my friends keep texting me or there's something trending."* This highlights the role of social reinforcement in digital behavior, again connecting with Bandura's idea of reciprocal determinism.

5.3 Similarities and Differences in Perception: A Generational Divide

Perhaps the most compelling insight lies in the comparison of teacher and student perspectives. While both groups acknowledged the importance of digital well-being, teachers emphasized structure and health consequences, whereas students were more focused on social connectivity and emotional responses. One teacher commented, *"Students don't see the long-term harm of screen addiction they live in the moment."* Conversely, a student shared, *"Sometimes scrolling memes actually helps me relax when I'm stressed about school."* This contrast illustrates a generational divide in digital culture, similar to the findings of Mascheroni and Ólafsson (2016), who noted the difference between adult-led digital safety narratives and youth-driven media usage norms. The findings reaffirm the need for co-designed digital well-being programs that incorporate both adult expertise and student lived experiences.

5.4 Integration with Theoretical Framework

The data findings resonate with the underlying theoretical assumptions of Social Cognitive Theory, particularly the constructs of self-efficacy, observational learning, and environmental influence. Teachers often modeled balanced digital behavior in classrooms, which theoretically could shape students' habits. However, as indicated in the data, external factors such as peer influence and entertainment content often disrupted this process. The findings also support the value of Digital Citizenship Education Frameworks (Ribble, 2011) which advocate for intentional digital behavior, community responsibility, and critical engagement elements currently underemphasized in many secondary schools. Furthermore, the disparity in understanding and managing screen-time points to a need for curriculum integration of media literacy education, as advocated by Buckingham (2015), to empower students with evaluative and decision-making skills in digital environments.

This study contributes to existing literature by bridging the experiential gap between teachers and students in digital well-being discourse. Previous research has largely focused on either teacher perspectives (Kosteniuk et al., 2022) or youth media consumption habits (Ofcom, 2021), with few studies exploring both viewpoints in a single qualitative framework. Moreover, this study highlights the contextual barriers (such as school policy contradictions and parental digital practices) that influence the implementation of screen-time literacy strategies, an area not sufficiently covered in current literature. The study also brings attention to the cultural dynamics of Pakistani secondary schools, offering localized insights that are rarely explored in global digital well-being studies.The discussion integrates key findings with theoretical insights and previous research, identifying areas of convergence and divergence in perceptions of digital well-being. The study confirms that while awareness is present, practical implementation and reflective understanding remain underdeveloped, especially among students. By situating these findings within existing educational frameworks and psychological theories, the study provides a foundation for designing more targeted, context-sensitive interventions in digital well-being education.

5.5 Conclusion

This qualitative research aimed to explore the perceptions of both secondary school teachers and students regarding digital well-being and screen-time literacy. Drawing on interviews, thematic analysis, and the Social Cognitive Theory as a guiding framework, the study has brought to light several critical insights that are essential for understanding the digital habits, awareness, and challenges faced by adolescents and educators in the current digital era. The findings reveal that both students and teachers recognize the growing importance of digital well-being. Teachers expressed concern about the overuse of digital devices and its impact on students' physical and mental health, particularly highlighting sleep disturbances, lack of focus, and increased screen dependency. Many teachers also acknowledged a gap in their own understanding of digital literacy, pointing to the urgent need for professional development in this area. For instance, one teacher noted, *"We were never trained in handling digital well-being issues; we're still learning how to guide students in managing their time online."* This reflects the need to embed digital wellness into teacher education programs and ongoing training.

On the other hand, students conveyed mixed perceptions. While some were aware of the negative effects of excessive screen time, many admitted to struggling with screen-time regulation, particularly due to social media, online gaming, and educational demands. Students often lacked formal education or tools to help manage their screen-time effectively. As one student stated, *"Sometimes I use my phone all night. I know it's not good, but I don't know how to stop."* This quote reflects a broader theme of inadequate self-regulation and external guidance, reinforcing the need for school-based interventions that integrate digital well-being practices into everyday learning. A comparison of both groups highlighted both similarities and differences. Teachers and students agreed that screen-time can negatively affect health and academic performance. However, a difference emerged in the level of awareness and responsibility. While teachers saw screen-time issues as part of their professional role to address, students often viewed it as a personal struggle. This divergence underscores the need for shared responsibility and collaborative digital citizenship education involving teachers, students, and parents.

These findings align with the theoretical foundation of Social Cognitive Theory, particularly the concepts of self-regulation, observational learning, and environmental influence. Both teachers and students learn behaviors by observing each other, and the environment (school policy, parental guidance, digital infrastructure) plays a key role in shaping attitudes and habits. The lack of structured policies and curriculum regarding digital well-being further emphasizes the need for systemic reforms. This research contributes to the growing literature on digital well-being by providing a comprehensive and human-centered understanding of how secondary school communities perceive and navigate digital health and screen habits. The study identifies key areas where schools can intervene through teacher training, student awareness programs, and policy development to foster healthier digital environments. Future research may further explore intervention models or expand the scope to include parents and policymakers to create a more holistic framework for digital well-being in educational settings.

5.6 Recommendations

Based on the data analysis, participants' responses, and alignment with the research objectives and theoretical framework (Social Cognitive Theory), the following recommendations are proposed to improve digital well-being and screen-time literacy among secondary school students and teachers:

1. Schools should formally introduce digital well-being and screen-time management topics into the curriculum as part of life skills, ICT, or health education. This will provide students with structured knowledge and strategies to self-regulate their digital habits.
2. Organize workshops and training sessions for teachers on digital well-being, screen-time monitoring tools, and healthy tech integration in classrooms.
3. Schools should involve parents through seminars, awareness campaigns, and digital literacy sessions to help reinforce healthy screen-time habits at home.
4. Educational institutions should create clear, age-appropriate policies regarding screen-time limits, device usage during classes, and digital detox routines.

5. Promote the use of apps and built-in device features (such as screen-time trackers, focus modes, etc.) among both teachers and students to help manage usage and improve awareness.
6. Encourage student-led initiatives such as digital wellness clubs, peer mentoring, or social media campaigns within schools to raise awareness and normalize healthy digital practices.
7. Provide access to school counselors trained in digital addiction, social media anxiety, and mental health issues related to excessive screen-time.
8. Implement surveys or digital audits at regular intervals to assess screen-time habits and digital well-being awareness across the school population.

These recommendations, when implemented in collaboration with all stakeholders students, teachers, school leaders, and parents can contribute to a healthier, more balanced digital learning environment that promotes student success, well-being, and resilience in the digital age.

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