EVIDENCE BRIEF

Supporting Balanced Device Use and Student Mental Health

This evidence brief synthesizes current research on the relationship between personal device use and mental health among **students in the school context**, with a focus on the promotion of balanced device use. It is intended for **school staff** who work with students from kindergarten to grade 12.

This brief provides an overview of key concepts, including definitions and prevalence of personal device use among students, factors influencing use and the impact of personal device use on mental health and well-being. It concludes by highlighting the roles schools can play in shaping student experience with personal devices.

Main messages

- **Personal device use is a common part of students' daily lives** for learning, connection and recreation (1,2).
- **The impact of device use depends on how, why and in what context it occurs,** rather than screen time alone (3,4).
- **Equity and access shape students' digital experiences,** including exposure to risks and access to supportive online spaces (5,6).
- **Device use can both support and challenge mental health and well-being,** depending on patterns of engagement and individual context (3,7).
- **Device use that interferes with a student's day-to-day activities, including building and maintaining relationships at school or within the home, may be associated with poor mental health outcomes,** including emotional difficulties and mood disorders (3,8).
- **Balanced device use supports mindful, meaningful and manageable engagement with technology,** emphasizing quality and purpose of use (1,7).
- **Schools and families play a key role in supporting healthy device use,** through guidance, modeling and skill building (9,10).

Introduction

Childhood and adolescence are formative developmental periods marked by rapid cognitive, social and emotional growth. During this time, students are building relationships, exploring identity and developing the skills needed to navigate increasingly complex environments. Today, these developmental processes unfold not only in physical spaces, but also in digital ones, where personal devices play a central role in how students connect, learn and engage with the world.

Digital technologies are becoming increasingly more accessible and are now deeply embedded in students' daily lives (4).

> A student's personal device can function as a tool to support their creative passions, maintain social connections, access educational domains or materials and explore interests (2).

Additionally, many students use their devices in ways that support their mental health and well-being, including maintaining supportive relationships, accessing mental health information and resources for support (e.g., Kids Help Phone, One Stop Talk), participating in communities of shared interest and engaging in creative self-expression (1,7,11).

Mental health challenges among youth also remain a significant public health concern in Canada (12). During and following the COVID-19 pandemic, students reported elevated levels of depression, anxiety and stress (13). The emergence of mental health challenges during childhood and adolescence can have lasting implications for mental health and well-being later in life (12).

> While many interconnected factors contribute to student mental health, digital technology has emerged as an important and evolving influence.

In spite of noted benefits, certain patterns of use have been associated with emotional distress and poor mental health (3).

> In this brief, personal device use refers to the use of internet-enabled devices that students access for communication, learning, entertainment and social connection, including smartphones, tablets, laptops and similar digital technologies. These devices often serve multiple functions simultaneously and are embedded in many aspects of students' daily lives.

Understanding how personal device use intersects with student mental health has become increasingly important. As digital technologies continue to shape students' social and educational careers, there is growing need to better understand how personal devices and digital media influence student mental health and to support balanced and appropriate use.

Balanced device use

Much of the public conversation about youth and technology has focused on the amount of time spent using devices, or 'screen time'. While this provides a useful snapshot, evidence suggests that time alone is not a strong predictor of outcomes (3,8). The same amount of time can have very different implications depending on:

- what students are doing (e.g., creating and viewing content, communicating, collaborating)
- why they are using devices (e.g., connection, learning, coping, entertainment)
- how use affects functioning (e.g., sleep, mood, relationships, learning)

A more helpful approach is offered through the concept of balanced device use. As a framework, balanced device use emphasizes the quality, purpose and context of engagement with technology. It encourages consideration of three interconnected elements:

- **Mindful use** (Am I aware of how much time I spent on my device and how I feel during and after use?). This includes awareness of how, when and why devices are used and how those experiences affect well-being (7).
- **Meaningful use** (Is my use of personal devices meaningful to me?). This refers to engagement that supports connection, learning, creativity or a sense of purpose (7).
- **Manageable use** (Am I able to manage my device use?). This involves patterns that fit within a healthy balance of sleep, relationships, physical activity or academic responsibilities (1,8).

This perspective recognizes that devices are not inherently beneficial or harmful. Instead, outcomes depend on patterns of engagement and the broader context in which use occurs (3).

Supporting balanced device use

Balanced device use provides a strength-based framework for supporting student engagement with technology. This approach aligns with the concept of digital mental health literacy, which emphasizes developing the knowledge, skills and capacity needed to critically evaluate technology use, understand its relationship to mental health and well-being, and make informed decisions about digital engagement. Rather than focusing solely on reducing screen time, it emphasizes skill-building, reflection and informed decision-making (9,10). Additionally, following established guidelines from reputable sources, such as those from the Canadian Paediatric Society, remains important for students and their caregivers in preventing the 'crowding out' of essential activities (e.g., family time, physical play) necessary for positive development.

Supporting balanced device use involves helping students:

- reflect on their own patterns of engagement
- understand how device use affects their well-being
- develop strategies to adjust their use when needed
- build skills such as self-regulation, critical thinking and decision-making (9,10)

In practice, this may involve helping students become intentional about when, why and how they use devices, encouraging engagement in activities that support connection, learning, creativity and well-being and ensuring that device use is balanced with important offline experiences such as sleep, physical activity, relationships and recreation (1,2,8,14).

The role of schools

Schools play an important role in shaping student experiences with technology and supporting balanced device use. Beyond academic instruction, they are environments where students develop relationship and social-emotional skills and learn to navigate complex social contexts.

In Ontario, policy direction such as Policy and Program Memorandum 128 (PPM 128) regarding the use of mobile devices in schools reflects growing attention to the role of mobile devices in school settings. While such policy provides structure around when and how devices may be used, research suggests that they are most effective when combined with educational approaches that build student understanding and skills.

At a universal level, this includes **modeling** balanced device use behavior (e.g., setting clear expectations and demonstrating mindful engagement with technology in the classroom), demonstrating and describing the importance of in-person relationship building and reinforcing related communication skills, and providing age-appropriate guidance about the internet, gaming and social media use. Schools can **teach** the skills needed to navigate digital environments effectively. This includes integrating digital citizenship, critical thinking and social-emotional learning into everyday instruction (10). Schools can also **support** students who may be experiencing difficulties. This may involve identifying early signs of problematic use, providing targeted support and connecting students with appropriate mental health services when needed (9).

Collaboration with families is also important. Consistent messaging across home and school contexts can strengthen students' ability to develop and maintain balanced habits that include both healthy device use and a range of offline activities and relationships.

Equity and inclusion

Students' experiences with digital technology are shaped by broader social and structural factors, including access to devices and connectivity, cultural context and experiences of discrimination. For some students, devices are essential tools for participation, enabling access to education, communication and

support. Online spaces can provide opportunities for connection and identity affirmation, particularly for marginalized communities. For others, digital environments may involve increased exposure to harm, including racism or other forms of discrimination (5,6).

These realities highlight the importance of approaches that are flexible, inclusive and responsive to student experiences. Embedding mentally healthy school practices grounded in reconciliation and equity supports the promotion of balanced device use and facilitates opportunities for students to practice life skills they find helpful (e.g., critical thinking), improves student mental health and well-being while navigating digital spaces and fosters a safe and supportive school environment for all students, including racialized students and those who identify as 2S/LGBTQIA+ (15).

Digging deeper

Understanding personal device use

Research increasingly conceptualizes personal device use as existing along a continuum. At one end is functional, everyday use, such as completing assignments, accessing information, communicating with peers or pursuing interests. At the other end are patterns of use that may interfere with daily functioning, relationships, learning, sleep or emotional well-being (16).

These distinctions are important because understanding device use requires attention to the quality, purpose and context of engagement, rather than solely the amount of time spent using devices. Research increasingly suggests that the effects of technology use depend on what students are doing, why they are engaging and how that engagement fits within their daily lives (3,8).

Recreational screen time might also lead to high levels of sedentary behaviour, which has been associated with psychosocial difficulties and reduced engagement in activities that support social connection and well-being (17). Digital communication can support social connection and relationship maintenance; however, research suggests it may not fully replace the benefits of in-person interactions. Face-to-face relationships provide important opportunities for students to develop skills such as initiating friendships, sharing emotions, setting boundaries, resolving conflict and building supportive social networks (18,19). As such, the literature increasingly emphasizes that understanding device use requires attention to what students are doing, how they are engaging and the meaning of that engagement in their lives.

Device use in the everyday lives of students

Digital technology is embedded in the everyday lives of children and youth. Many students begin using personal devices by early adolescence and engage with them multiple times throughout the day for communication, entertainment and learning.

Canadian data shows that a substantial proportion of youth exceed recommended screen time guidelines and many report several hours of daily device use across activities.

- More than one third (37%) of youth exceed recommended screen time guidelines (two to three hours per day, depending on age (20).

- Studies from Ontario and Alberta suggest that children and youth spend, on average, more than 7.5 hours per day across various screen-based activities, with approximately 20% of secondary school students spending five or more hours per day on social media alone (21).

These figures, however, should be interpreted cautiously. Quantitative measures of screen time do not capture the full scope of use and associated student outcomes. In practice, devices serve multiple and often overlapping purposes and offer opportunities for self-expression, identity exploration and participation in communities of shared interest. They also play a practical role in daily life, staying connected with family and accessing educational platforms and school-related materials (1). At the same time, features such as personalized content and auto-play are designed to maximize engagement, making it more difficult for students to disengage. Such design nurtures compulsive behaviours and raises serious safety concerns for students who are vulnerable to the adverse effects of prolonged device use. Recent research has shown practical solutions such as browser extensions and self-regulated news feed diets make social media platforms less compelling and reduce continuous scrolling (22).

Device use and mental health: a complex relationship

A large and growing body of research has examined the relationship between device use and mental health, with findings that are nuanced and often context dependent. While research has examined many forms of digital engagement, much of the evidence linking device use and mental health focuses specifically on social media use and online social interactions (3,7). Understanding this distinction is important, as different forms of digital engagement may have different implications for well-being.

On one hand, digital technologies offer important opportunities for well-being. They can support social connections, particularly for students who may feel isolated in offline environments. Online spaces can provide opportunities for self-expression, identity exploration and access to information and support (11). For students experiencing discrimination or marginalization, digital environments may serve as important spaces for connection, affirmation and help-seeking (7).

On the other hand, certain patterns of device use have been associated with challenges. These include sleep disruption, emotional distress, reduced academic engagement and exposure to harmful online content such as cyberbullying, hate messages or violent imagery. In 2022, 71% of young Canadians reported seeing online hate content in the past 12 months, well over the national average (49%) (23). A meta-analysis of cohort studies has identified associations between screen use and symptoms of anxiety, depression and psychological distress (24), although these relationships vary based on age, context and type of engagement.

Research also suggests that different forms of recreational screen use may be associated with different outcomes. For example, studies also suggest recreational screen use differs between males and females. Adolescent males typically spend their time playing computer-based games and video games while adolescent females are often engaged with social media and instant messaging (25).

Overall, research consistently points to the importance of how, why and in what context devices are used. Factors such as the type of activity, level of engagement, individual characteristics and the presence of supportive relationships all shape outcomes. As such, understanding device use requires moving toward a more balanced and contextualized view.

Conclusion

The relationship between personal device use and student mental health is complex. It reflects both meaningful opportunities and potential risks and challenges. The key question is not whether students should use personal devices, but how they can be supported to use them in ways that encourage a mentally healthy balance across online and offline relationships and activities.

By focusing on balanced device use and supporting the development of skills, awareness and supportive environments, schools and families can help students engage with technology in ways that promote connection, learning and overall well-being in an increasingly digital world.

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