Can EdTech Promote Better Mental Health?

The Science Behind Wellness-Focused Learning Tools

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Introduction

In the ever-evolving digital landscape of the 21st century, high school students need to keep themselves up-to-date and learn useful tech skills. Technology is used in every field today, be it science, agriculture, transportation, education or any other field. Students with prior digital knowledge and tech skills get an upper hand against others when they join college or go for higher education. A report by Mercer-Mettl reveals that only 42.6% of Indian graduates were employable in 2024. The main reason behind this is the lack of employability skills in today's youth. To survive the tough competition, it becomes necessary to develop tech skills at the earliest.

The Mental Health Crisis in Students

Mental illness among the youth has witnessed a steep rise in the last few years. The pandemic of COVID-19 increased the issue, disturbing school schedules and restricting socialisation opportunities. In an article published in Cureus in 2024, students who transitioned to online education demonstrated increased rates of depression, anxiety, and stress due to increased screen time, discontinuity, and isolation. But this very same report revealed that other students were achieving emotional stability through the help of helpful online resources, i.e., mental and physical well-being apps and telecounseling. This implies that EdTech isn't the culprit itself; the way we plan and implement it is critical.

As we travel along the ever-evolving landscape of EdTech, it is vital to look into its evolving landscape, not only about learning results but also regarding the emotional and psychological lives of students. We need to look into the way wellness-focused educational materials are authored, taught, and put to use in actual learning environments if we want to fully comprehend this dynamic.

EdTech and Mental Health: Power of Transformation

1) Improved Access to Mental Health Care: Several EdTech platforms currently offer integrated wellness solutions such as emotional well-being apps, mindfulness practices, and virtual counselling services to significantly expand access to mental health services. For example, the platforms such as Calm Classroom and Headspace for Educators are designed to promote mental well-being through meditation, breathing exercises, and stress-reduction strategies. Regular use of these methods can decrease anxiety and improve emotional regulation, especially among frazzled students, research says. Studies have shown that mindfulness and meditation practices can make students less depressed and anxious, providing a good scientific justification for incorporating these practices into educational systems.

2) Personalised Education and Its Effect on Mental Well-being: EdTech's ability to customise the learning experience for each student is one of its principal capabilities. By tailoring courses to each learner's advancement, adaptive learning tools like Khan Academy and Duolingo reduce the stress that

often comes with traditional one-size-fits-all instruction methods. These tools lower stress and facilitate a positive learning attitude by allowing students to learn at their own pace. Along with enhancing academic performance, individualised learning enhances emotional well-being by reducing frustration or inadequacy. Personalised learning materials have also been seen to enhance the self-efficacy of learners, which strongly corresponds with improved mental health.In addition, by allowing learners more autonomy and meaningful choice about how to learn, personalised learning significantly promotes socialemotional development. Adaptability leads to inner motivation, control of feelings, and understanding oneself. Much EdTech utilises performance-based activities that favour mastery and utility over mere normal modes of evaluation. This aids in lessening test anxiety and encouraging a stronger connection with learning. By redirecting the teacher's role toward emotional support and mentoring-two critical elements in building trust and a sense of strong belongingness among students-these methods assist in enhancing the relationships between teachers and students.

3) Social-Emotional Learning (SEL) Integration in EdTech: EdTech platforms are quickly integrating Social-Emotional Learning (SEL) programs, which educate students to identify and manage their emotions. The mission of such programs as ClassDojo and Emote is to improve students' social and emotional abilities through giving them in-class, interactive, and interesting features, along with instant feedback. Developing emotional intelligence, empathy, and resilience are all integral parts of mental well-being promoted by such sites. Over and over again, research proves that SEL programs enhance children's ability to create healthy social connections, reduce behavioural problems, and enhance emotional regulation. Ultimately, this leads to improved classroom

conditions and mental health outcomes. Strong evidence supports SEL helping create mental wellness within schools, according to the Collaborative for Academic, Social, and Emotional Learning (CASEL).

4) Virtual Counselling and Teletherapy: A Student Support Game-Changer With the increasing popularity of telemedicine, virtual counselling services have become a vital component of EdTech that works towards enhancing the mental well-being of students. Today, school wellness programs often include platforms such as Therapist Aid, BetterHelp, and Talkspace, which provide children with safe, online access to licensed mental health professionals. Classic in-person counselling frequently lacks the intimacy, convenience, and adaptability that these services possess; this is especially important for adolescents who may be hesitant to seek assistance face-to-face. Students are motivated to receive treatment when they need it most due to the anonymity and convenience, which de-stigmatises conversation regarding mental health. The advantages of virtual therapy in the education system continue to be validated by scientific evidence. A 2024 study that was sponsored by the National Institutes of Health (NIH) and published in the Journal of Global Health found that digital mental health interventions greatly enhance teenagers' psychological outcomes. According to the study, teletherapy frequently works equally as well as in-person counselling, particularly when it comes to treating stress-related disorders, anxiety, and depression in students from underserved or rural areas. Using teletherapy, students can engage with mental health professionals in a relaxing, high-tech environment, improving the availability, consistency, and efficacy of assistance.

Challenges of EdTech on Mental Health: Possible Pitfalls

As we've observed, EdTech tools offer a multitude of benefits, ranging from convenient virtual therapy to SEL integration and individualised learning. By making learning more student-focused, emotionally supportive, and cognitively challenging, these resources are transforming education. The growing dependency on online media does, nevertheless, carry some challenges that should not be underestimated, as would be the case with any large innovation.EdTech encourages scholastic and emotional development but can also yield unintended consequences, especially regarding psychological and physical well-being, if done improperly or even abused.

1) Increased Screen Time and Its Detrimental Consequences: The rise in kids' screen time is one of the most pressing concerns in the era of online learning. Students today spend more time in front of screens than they ever did due to interactive apps, virtual classrooms, and constant notifications. This constant digital engagement can be counterproductive despite keeping learning steady. Several physical and psychological ailments, such as digital eye fatigue, disrupted sleep, increased irritability, and long-term fatigue, have been immediately linked to prolonged screen viewing. During the COVID-19 pandemic, this issue was most evident. Students felt more depressed and anxious due to the transition to online learning. In a recent study, children and adolescents who spent more time on screens were far more likely to have mental health problems such as mood swings, lack of motivation, and loneliness.

Research highlights the importance of using technology in moderation. Digital device overuse can interfere with executive functioning and emotional control, particularly among younger students, based on one comprehensive review. Prolonged screen use has also been connected

with lower grades and increased amounts of stress due to overstimulation and insufficient physical activity, based on another piece of research3. Such outcomes suggest that even though EdTech tools are manifestly beneficial, digital wellness lessons need to be employed in their use. Their risks of increased digital exposure may be mitigated by creating such healthy boundaries like restricting screen hours per day, taking regular offline breaks, and encouraging outdoor activities. Towards creating a sustained, well-stabilised ecosystem of learning, EdTech industry players and schooling institutions alike should integrate these strategies into their sites and courses of study.

- 2) Digital Divide and Inequitable Access to Mental Health Services: EdTech can improve the well-being of students, but it also highlights an emerging problem: not all students have equitable access to technology. For most students, especially those in low-income or rural communities, the benefits of educational materials are restricted by the digital divide, which is founded on socioeconomic disparities. These children stand to be locked out of online studies and mental wellbeing programs if they lack access to digital equipment or reliable internet. They are hence likely to feel stressed, anxious, and isolated in return. The impact of digital inequality on the mental well-being of students is brought out by studies. Students with restricted access to technology during remote instruction were more likely to feel emotional discomfort and disengagement, as per a study published in Discover Education.
- 3) Privacy and Data Security Concerns: Data security and privacy concerns are becoming increasingly prominent as EdTech platforms are being integrated more extensively into students' learning environments. Several of these technologies are accumulating a large amount of private data,

like habits of learning, emotional response, and even markers of mental wellness.

Pupils and parents can start worrying and feel distrusted if that information isn't properly shielded. Data privacy in educational environments is a critical element of mental well-being in EdTech systems, as the National Research Council and Institute of Medicine have stated that safe and emotionally secure environments are crucial for children's and adolescents' healthy development.

The Science Behind Wellness-Centric Learning Tools

1) Mindfulness and Cognitive Behavioural Science: EdTech well-beingoriented learning materials often include mindfulness and cognitivebehavioural science (CBT) principles. By promoting awareness and acceptance of one's thoughts, mindfulness activities are designed to help students cope with stress, anxiety, and emotions. These concepts are employed by sites such as Calm and Headspace to guide students through meditation practices that promote emotional regulation. Scientific Foundations: Studies have proven that mindfulness-based interventions enhance the overall well-being of students by reducing symptoms of anxiety and depression. These materials have a scientific basis due to research indicating how effective mindfulness is in improving mental health.

2) Biofeedback and Emotion Recognition Technology: Biofeedback and emotion detection technologies are also integrated into sophisticated EdTech platforms. These devices employ sensors to monitor physiological responses, like skin conductivity or heart rate, to measure students' emotional states and provide them with instant feedback on their stress levels. This data-driven approach helps students manage and comprehend their emotions more

effectively. Through education in regulating body responses to stress, biofeedback has been demonstrated as an effective tool in reducing stress and anxiety. Emotion recognition technology helps reveal details of emotional wellness, allowing quick actions when required.

CONCLUSION

If used carefully, EdTech can be an effective tool to encourage students to have better mental health. Mental well-being can be enhanced significantly by education resources centred on wellness, such as virtual counselling services, SEL programs, and mindfulness applications. With that said, challenges such as privacy issues, digital injustices, and screen time must be managed carefully. EdTech is an essential component of modern education because it has the potential to greatly enhance students' mental well-being by integrating evidence-based practices and leveraging the science behind wellness solutions. Teachers, lawmakers, and mental health professionals must collaborate as the field evolves to ensure that EdTech addresses students' emotional and psychological needs as well as their cognitive ones.