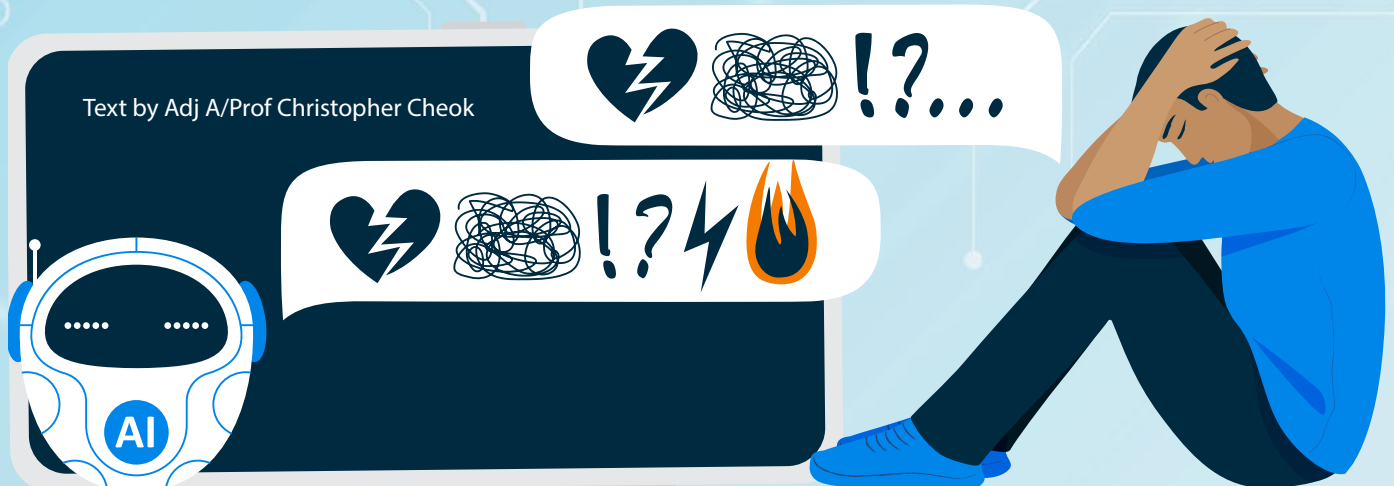


## SINGAPORE MENTAL HEALTH

# Leveraging Technology

## WHILE MAINTAINING SAFETY



Text by Adj A/Prof Christopher Cheek

Singapore's mental health situation has shifted markedly since the COVID-19 pandemic, with national surveys consistently indicating rising psychological distress across multiple demographic groups. Data from the past three National Population Health Surveys show that younger adults, particularly those aged 18 to 29, report the highest levels of anxiety, low mood and stress-related symptoms at about 25% of that demographic. These findings suggest that while awareness of mental health issues has improved, the psychological safety nets that protect against distress are not uniformly present.

The Singapore Mental Health Study 2010 and 2016 highlighted persistent treatment gaps. Delayed help-seeking remains common, driven by stigma, cultural norms around emotional expression and concerns about confidentiality. Among youths, the National Youth Mental Health Study presents a particularly concerning picture: roughly one in three young people report severe or extremely severe symptoms of depression,

anxiety or stress. Digital overexposure, cyberbullying and body image pressures are key issues, with a substantial proportion of youths spending more than three hours daily on social media and demonstrating higher odds of psychological symptoms. For clinicians, these epidemiological signals point to a generational shift in both the drivers and manifestations of distress.

### The explosion of mental health apps

The digital mental health ecosystem has expanded at a pace unmatched by traditional healthcare innovation. App stores now host thousands of mental health apps promising mood tracking, cognitive restructuring, mindfulness, crisis support and artificial intelligence (AI) technology-enabled companionship. Their appeal is intuitive: anonymity, immediacy and low cost. For the vast majority of individuals hesitant to seek formal care, these tools appear to offer a low-barrier entry point. Yet the overwhelming majority of these apps have no clinical validation. Few have

undergone rigorous evaluation and even fewer have published evidence demonstrating efficacy. Many rely on persuasive design rather than research. Some provide advice that contradicts established guidelines, while others offer generic or superficial responses that fail to account for clinical nuances for the individual. Essentially, it is currently a free-for-all with no health authority oversight or regulation. For patients already ambivalent about seeking help, these tools can create false reassurance. They may delay appropriate intervention, reinforce maladaptive thinking or worsen distress through poorly calibrated feedback. Clinicians increasingly encounter patients who arrive with information from unvalidated apps or expectations shaped by commercial marketing rather than evidence-based practice.

### Digital therapeutics: a regulated minority

Only a small subset of digital mental health tools undergo regulatory scrutiny. The digital therapeutics approved by

the US Food and Drug Administration (FDA) represent the minute minority and typically target specific conditions such as insomnia, attention deficit hyperactivity disorder or substance use disorders. These products are backed by clinical trials, defined therapeutic mechanisms and postmarket surveillance. They are designed to function as medical interventions rather than wellness products. Currently, this group of FDA approved apps number less than ten.

The contrast between regulated digital therapeutics and the unregulated mass of wellness apps is stark. For clinicians, this creates a challenging environment: patients often cannot distinguish between evidence-based digital interventions and commercially driven products. The risk of conflating wellness tools with therapeutic tools is substantial, particularly for individuals with moderate to severe symptoms.

### The clinical risks of AI in mental health

The rapid integration of AI technology into mental health tools adds another layer of complexity. Large language models and conversational agents can simulate empathy, maintain extended dialogue and offer coping suggestions. For individuals experiencing loneliness, anxiety or low mood, these interactions can feel supportive. The conversational fluency of AI systems can create an illusion of companionship, the perfect supportive friend always available. But simulation is not equivalent to therapeutic presence. AI cannot reliably detect risk, interpret nuance or provide the containment that trained clinicians offer. Pattern-matching can inadvertently reinforce maladaptive thinking. Advice may be inconsistent, superficial or inappropriate. AI systems lack the capacity for clinical judgement, moral reasoning or relational accountability.

For vulnerable individuals, these limitations can have real consequences. AI may reinforce cognitive distortions through uncritical mirroring, provide advice misaligned with clinical best practice, fail to recognise escalating risk or crisis situations, create emotional dependence on a system that cannot

reciprocate, and blur the line between support and simulation, leading to relational confusion. Anecdotal reports even suggest that AI can induce psychotic states and encourage suicide.

### The artificiality of AI “friendship”

AI companions are increasingly marketed as friends, confidants or partners. For individuals who feel isolated, this can feel comforting. But the relationship is inherently asymmetrical. AI does not possess lived experience, emotional depth or the capacity for genuine reciprocity. The “friendship” is a projection shaped by the user’s needs and the model’s training data, and the majority of training data is based on data from men.

This artificial closeness can displace real human relationships, reduce motivation to seek professional help, distort expectations of interpersonal interaction and create emotional dependence on a system that cannot provide genuine care. In mental health contexts, where trust and authenticity are core therapeutic ingredients, this artificiality becomes a clinical liability.

### Singapore’s approach to technology in mental health

Singapore has taken a more structured and cautious approach to integrating technology into mental health care. Current Government-funded initiatives emphasise evidence-informed design, clinical oversight and human-centred implementation.

Two such initiatives include mindline.sg and let’s talk, (available at <https://letstalk.mindline.sg>), which provide curated digital platforms offering psychoeducation, self-assessment tools and guided exercises grounded in validated frameworks. It is designed to complement, not replace, professional care. The platform avoids the pitfalls of unregulated apps by ensuring that content is clinically reviewed and aligned with established therapeutic principles. mindline.sg has had over one million users since its launch in 2022.

national mindline 1771 (nm1771) is Singapore’s first national mental health helpline and textline, available by dialling 1771 or via WhatsApp at 6669 1771,

and integrates digital triage with human responders. This 24/7 hybrid model ensures that individuals in distress are connected to trained professionals rather than automated systems. It reflects an understanding that while technology can facilitate access, crisis support requires human judgment. Since nm1771 launched in June 2025, it has served over 39,000 users.

Currently, other Singapore-developed clinical mental health apps such as AmDTx and HOPES are being subjected to clinical trials in order to validate their effectiveness in the local population.

### Conclusion

Digital tools will continue to expand, and patients will increasingly integrate them into their help-seeking behaviours. The task for clinicians is not to reject technology but to critically appraise it, guide patients toward evidence-based resources, and remain vigilant to the risks of unregulated tools and AI-mediated interactions.

Singapore’s strategy, leveraging technology for accessibility while maintaining a strong human-centred foundation, offers a model for balancing innovation with safety. Mental health care remains fundamentally relational, contextual and human. Technology should complement that reality, not attempt to replace it. ♦

Adj A/Prof Cheok is the director of national mindline 1771 and chief of the National Addictions Management Service at Institute of Mental Health. He has a passion for digital mental health and hopes to deliver more digital interventions to persons in distress, especially those not wanting to seek professional help.

